THE

Board of Trade Journal

OF

TARIFF AND TRADE NOTICES

AND

MISCELLANEOUS COMMERCIAL INFORMATION.

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I.—BOARD OF TRADE NOTICES.

State of the Skilled Labour Market.

The following memorandum has been prepared for the *Board of Trade Journal* by the Labour Correspondent to the Board of Trade:—

The condition of the skilled labour market still remains very disturbed. There is, it is true, a falling off in the number of strikes recorded during the month, the total having fallen from 63 in the previous month to 48. Unfortunately, however, there is no decrease in the number of persons involved, some of the disputes now raging being of considerable magnitude, and affecting indirectly a gradually augmenting total of workpeople in connected industries. From this cause there is a considerable increase in the number of unemployed workmen, and in some trade unions the out-of-work funds are being largely drawn upon. There have been noted 12 strikes in the cotton trade; six in the woollen trade; four each in the coal, building, and transport trades; three in the clothing trades; and two among tin-plate workers. The others are among miscellaneous industries, and of these the most important dispute is that of the engineers on the north-east coast, which is now in its sixth week, and which directly and indirectly probably affects from 15,000 to 20,000 workers of all grades.

A further cause of disturbance has been the approaching stoppage of productions over an area of two-thirds of the national coal-field, and the probable strike of all the miners in the county of Durham against a reduction in wages.

There have this month reported to the Board of Trade 19 trade unions who show a total membership of 246,791, of which 13,971 are out of work. Last month there were 12,197 on the unemployed list, so that there is an increase of 1,774 on the month. The per-centage last month was 4·97, but now it is 5·66. For the corresponding month of last year the proportion was 2·6, and for that of 1890 but 1·4. The only trade showing a marked improvement is the London printing trade, which has benefited from the opening of the Parliamentary session, the per-centage of unemployed having fallen from 5·1 to 2·9 during the month.

In the general remarks made by the societies sending in returns only two describe trade as "good," while 17 say it is but "moderate."

Official Inquiries under the Boiler Explosions Act.

Boiler Explosion at Falmouth.—A formal investigation into the causes and circumstances attending the explosion of a boiler upon the premises of a block-maker at Arwenack Street on the 5th January last was held at the Town Hall, Falmouth, on the 16th February.

The boiler was purchased in 1884 for 19*s.*, and it was not used from that time until it was sold in 1891, with a small engine, for 5*l.*, to the person who owned it at the time of the explosion. He asked a friend who was employed by a well-known firm of engineers at Falmouth to inform him as to the pressure at which it could safely be worked, and he was informed 190 lbs. The owner found that 60 lbs. was sufficient for his work, that of supplying steam to an engine to drive a lathe, and he had the safety-valve loaded so as to blow off at that pressure.

The boiler was twice tried under steam to about 10 lbs., and upon the third occasion, when steam was got up to 32 lbs., the boiler exploded, injuring the owner and four other persons.

The court found that the explosion was due to over-pressure, the boiler having originally been constructed for heating purposes, and for a pressure of about 7 lbs.

They found that the owner was not to blame, as his friend represented himself to him as a competent person, and having regard to the position of the firm in which he was employed, he was justified in assuming that he was competent.

The friend proved to be a clerk in the employment of the firm, and the court found that he was very seriously to blame. He assumed that the boiler was cylindrical, whereas it was of a rude waggon shape, and without any examination he induced the owner to believe that it was safe to work at a pressure of 190 lbs. He never tested the boiler by hydraulic pressure, nor did he ascertain the necessary data upon which to base his calculations.

The court found that he was seriously to blame, but having regard to the fact that he received no remuneration for his services,

that his salary was only 35*s.* a week, and that he had no other means, they only ordered him to pay 5*l.* towards the costs and expenses of the investigation.

Boiler Explosion at Pellon, Halifax.—A formal investigation was held at the Town Hall, Halifax, on the 11th February, into the causes and circumstances attending the explosion of a boiler at Pellon, near Halifax, on the 28th December last. The boiler was purchased by the owner in the year 1884, and it was then about 10 years old. No examination of it was then made by a competent person, and the working pressure was fixed without any regard to the strength or condition of the boiler. It was never examined by a competent person from the time it was purchased until it exploded, and for this the court found the owner to blame. They found that the explosion was owing to the fire-box having become so wasted by corrosion as to be unable to withstand any useful pressure.

The court ordered the owner to pay 15*l.* towards the costs and expenses of the investigation.

Boiler Explosion at Cyfarthfa Steel Works, near Merthyr, Glamorganshire.—A formal investigation was held at Merthyr on the 18th and 19th February into the circumstances attending the explosion of a locomotive boiler at the Cyfarthfa Steel Works on the 13th January last, whereby one person was killed and four others were injured.

The boiler was made in 1879, and parts of the fire-box were renewed in 1886. At the time of the explosion the back plate collapsed and bulged, being forced over 29 contiguous stays immediately under the fire-door opening.

The court found that the locomotive was constructed in the usual manner, and an ordinary prudent and careful man had sufficient means to examine it.

That it was properly and carefully examined from time to time, and that the owners had taken every care in the management and up-keep of the boiler.

That the explosion was caused by over-heating due to heavy firing and the injudicious use of the blower, accelerated to some extent by the plate having thinned, and to the fact that there was slight scale upon it. They found that the plate was of sufficient thickness to withstand the pressure at which the boiler was worked.

The court held that as the explosion was due to an isolated act of imprudence on the part of one of the owner's employés, they were not to blame for the explosion, and they made no order as to costs.

Explosion of a Boiler at Weasenham Foundry, near Swaffham, Norfolk.—A formal investigation was held at the Shire Hall, Swaffham, Norfolk, on the 4th March, into the causes and circumstances attending the explosion of a boiler at the Weasenham Foundry on the 30th January last, whereby one person was injured.

The boiler, which was of the vertical multitubular type, was made in 1876, and though re-tubed in 1884, and again in 1891, the boiler had never been examined by a competent person.

No instructions had been given by the owner to the boiler-maker who re-tubed the boiler in 1891 to examine it, and no examination was then made. The court found that the explosion was owing to over-pressure, the fire-box in the vicinity of the collapse and rent having become reduced by corrosion to a thickness varying from $\frac{1}{20}$ to $\frac{1}{8}$ of an inch.

That the owner had never taken any steps to ascertain the pressure at which the boiler could safely be worked, and he professed entire ignorance of the pressure at which it was worked. It was looked after by a person who was incompetent to examine it, and from the time it was made until it exploded the boiler never was examined.

It transpired that it was the general custom in the district not to have boilers examined until they leaked or required repairs (except those boilers which were insured).

The court found that the owner was to blame for the explosion, but that he had erred from ignorance.

They ordered him to pay 15*l.* towards the costs and expenses of the investigation.

Board of Trade Awards for Gallantry.

The Board of Trade have awarded a piece of plate to Mr. Jenkin Thomas, master of the steamship "Knight Commander," in recognition of his services in rescuing the crew of the schooner "John Smith," of Ardrossan, which was wrecked in the Atlantic on the 4th November last.

The Board have also awarded their silver medal for gallantry n saving life at sea to Mr. Newton Allen, second mate of the "Knight Commander," who was in command of the boat of that vessel which rescued the shipwrecked men, and their bronze medal and a sum of 3*l.* each to Thomas Evans, James Williams, (quartermasters), and Shikh Adam Jawoodeen (second tindal of Lascars), who accompanied him in the boat.

The Board of Trade have awarded the following testimonials for services rendered in connexion with the wreck of the sailing ship "Eterkin," on the Galloper Sands, on the 12th December last:—

A silver medal for humanity in saving life at sea to Mr. Thomas J. Watson, skipper, and silver medals for gallantry and a sum of 2*l.* each to William Burton, second hand, and Edwin Hurle, third hand, and a sum of 2*l.* to Arthur E. Fisher, fourth hand of the fishing smack "Briton's Pride," of Ramsgate, in recognition of their services in rescuing C. J. Lewis, apprentice.

A bronze medal for humanity in saving life at sea to Mr. Wm. P. Seaton, master of the steamship "Ashton," in

recognition of his services in rescuing W. J. Gordon (seaman) and E. R. C. Ross (apprentice), and a bronze medal for gallantry to Mr. Alfred Chafer, second mate of the "Ashton," who was in command of the boat of that vessel which rescued the shipwrecked men, and a sum of 2*l.* each to the men who accompanied him in the boat, namely:—

Charles Britton, Arthur Spendley, George Moncaster (seamen), and James Boyles (a passenger).

The Board of Trade have awarded their bronze medal for gallantry in saving life at sea to William Heard (skipper), and John Howe (second hand), of the fishing smack "Vineta," of Grimsby, in recognition of their services in rescuing the master and crew of the fishing smack "Snipe," of Grimsby, which foundered in the North Sea on the 12th November last.

The Board of Trade have awarded bronze medals for gallantry in saving life at sea and a sum of 2*l.* each to Daniel Oprey, Edward Clarke, Henry Taylor, Robert Taylor, and Thomas West, fishermen, of Killough, County Down, Ireland, in recognition of their services in rescuing Barnard Oprey, of the fishing boat "Alexander," of Belfast, which capsized while making for Killough, on the 17th December 1891.

The Board of Trade have awarded a gold watch to Captain Carl Bahlke, master of the German sailing ship "Preussen," of Hamburg, in recognition of his kindness and humanity to the shipwrecked crew of the sailing ship "Gareloch," of Glasgow, which was abandoned off Cape Horn on the 26th November 1891.

Inspectors of Weights and Measures.

The following inspectors of weights and measures have passed the examination provided for in the 11th section of the "Weights and Measures Act, 1889":—

Jones, Evan - - -	Glamorganshire.
Jones, John - - -	Carmarthenshire.
Jones, William Henry - -	do.
Lavers, George Henry - -	Plymouth.
Rees, Thomas Vicary - -	Carmarthenshire.

Harbour Construction in Northern Spain.

The Spanish Government invite sealed tenders for constructing the north dock of Musel Harbour, at Gijon Bay, Asturias, at an estimated cost of 438,000*l.* Tenders will be received at the Office of the Minister for Public Works, Madrid, down to April 12th, where plans and conditions may also be inspected.

II.—THE COST OF LIVING IN PIG-IRON-PRODUCING COUNTRIES.

Bradstreet's for February 6th refers to the third and largest part of the recent report of the National Department of Labour at Washington on the cost of production, which is devoted to the subject of the cost of living, an essential element in the cost of production and in the efficiency of the labour employed. The portion of the report devoted to this subject covers nearly 800 pages, and embraces a vast amount of facts bearing on the subject. The facts upon which the statistics dealing with this subject are based have been gathered from families employed in the very establishments from which schedules relating to cost of production and pay accounts were obtained and upon budgets uniform for all industries. These budgets comprehended the constitution of the family, whether they owned the house in which they lived or whether the house was hired or furnished by the employer, the cost of living in itemised statements, and wherever possible with quantity as well, with figures as to the yearly income of the individual members of the family from all sources, and the total cost of living in comparison with the total income. The facts were gathered from 3,260 families, of whom 526 were in Great Britain and 244 on the Continent of Europe. The 3,260 families represented 16,581 individuals.

There are considerable variations in the figures for the yearly income of families in the several States. For example, the income of families engaged in the production of pig iron ranges from 93*l.* 16*s.* 2*d.* in Virginia to 150*l.* 15*s.* 4*d.* in Illinois. For the present purpose it will be sufficient to take an average for the families in the several States covered, so as to use, where possible, figures which will be representative for the United States in comparison with corresponding figures for other countries. The figures for the cost of living in pig iron production are gathered from 762 families. It appears that the average income of the husbands in these families is 106*l.* 19*s.* 8*d.*, but 123*l.* 15*s.* for the entire family, or 24*l.* 9*s.* 3*d.* per individual in each family. In Belgium, the only European country except Great Britain for which family budgets in the pig-iron industry are forthcoming, the average income is 78*l.* 0*s.* 6*d.*, while in Great Britain it is 95*l.* 3*s.* 7*d.* The average number of persons in the families in the United States is 5, in Belgium it is 5·8, and in Great Britain it is 4·9. The average for Europe, however, and for both Europe and the United States is the same as that for the latter country alone, viz., 5 persons.

The average amount paid for rent is much less in Europe than in the United States, being 13*l.* 10*s.* 11*d.* for the latter country, as compared with 6*l.* 12*s.* 2*d.* in Belgium and 8*l.* 5*s.* 6*d.* in Great Britain. The total cost for food per year for families in the United States averages 49*l.* 1*s.* 11*d.*, or 9*l.* 14*s.* 11*d.* per individual. The average in Belgium is 35*l.* 7*s.* 5*d.*, or 6*l.* 1*s.* 7*d.* per individual, and that for Great Britain is 46*l.* 6*s.*, or 9*l.* 10*s.* 5*d.* per

individual. It will thus be seen that while the average expenditure for food is slightly greater in the United States than in Great Britain, it is considerably greater than in Belgium, where the average expenditure is less than in any American State except Georgia. The chief article of expense in the diet of the families under consideration is meat, and under this head the expenditure is greater in the United States than in either of the other countries included in the comparison. The greatest disproportion is shown in the expenditure for bread in the three countries. The expenditure in the United States is on the average 18*s.* 6*d.* per annum. In Great Britain, on the other hand, it is 4*l.* 19*s.* 10*d.*, and in Belgium it is 10*l.* 5*s.* 4*d.*

The expenditures for fuel naturally vary considerably with the climate in the United States. The average for the whole country, however, in the case of the 762 families under consideration is 5*l.* 13*s.* 7*d.* The expenditure for fuel in Belgium is considerably less, being 3*l.* 9*s.* 9*d.*, while in Great Britain it is 4*l.* 6*s.* 6*d.* The expenditures for taxes are much higher in the United States than abroad, the average being 1*l.* 3*s.* 3*d.* as compared with 2*s.* 4*d.* in Belgium and 7*s.* 4*d.* in Great Britain. Life insurance is an item of considerable importance in the expenditure of families. It costs on the average 3*l.* 15*s.* 6*d.* per family in the United States and 2*l.* 10*s.* 10*d.* in Great Britain, no figures for Belgium being given. Contributions to labour organisations form a larger share in the total expenditures in the United States than abroad, the expense in this country being 1*l.* 10*s.* 3*d.*, as compared with 15*s.* 4*d.* in Belgium and 15*s.* 7*d.* in Great Britain. The average expenditure for religion is also considerably greater than abroad, being 1*l.* 12*s.* 3*d.* in the United States, as against 5*s.* 2*d.* in Belgium and 1*l.* in Great Britain. The expenditure for books and newspapers is slightly larger in the United States than in Great Britain, and more than double that for Belgium, the figures for the three countries in order being 1*l.* 3*s.* 9*d.*, 1*l.* 1*s.* 3*d.*, and 10*s.* 6*d.* In expenditures for amusement and holidays, however, Belgium comes first and the United States last, families in Belgium spending on the average 8*l.* 0*s.* 7*d.* as compared with 3*l.* 19*s.* 4*d.* in Great Britain and 2*l.* 7*s.* in the United States. The average expenditure for intoxicating liquors by the families under consideration is considerably greater in the United States than in Belgium, though less than in Great Britain, the figures being 2*l.* 0*s.* 3*d.* for Belgium, 3*l.* 13*s.* 4*d.* for the United States, and 4*l.* 11*s.* 1*d.* for Great Britain. An almost similar proportion is noticeable in the expenditures for tobacco, which are 1*l.* 3*s.* 1*d.* in Belgium, 2*l.* 7*s.* 9*d.* in the United States, and 3*l.* 8*s.* 3*d.* in Great Britain. The statistics given above, it will be noticed, cover only the families engaged in the production of pig iron, which have been chosen as affording certain advantages for comparison in detail. The report presents also similar statistics for families engaged in the production of bar iron, steel, bituminous coal, coke and iron ore, and in addition some more general and comprehensive statistics for all these industries which may form the subject of further reference.

III.—THE RELATION BETWEEN PRODUCTION AND CONSUMPTION IN RUSSIA.

The *Journal de St. Pétersbourg* for the 1st (13th) February, reproduces from an article by Professor Mendeleiew, a celebrated Russian chemist, a few particulars as to the place held by Russian industry in the universal production.

In normal years, Russia, with a population of 110,000,000 souls, produces 1,100,000,000 pouds of rye (poud = 36 lbs. avoirdupois) and 400,000,000 pouds of wheat, which gives an average of about 12⅓ pouds of corn per inhabitant. These are approximate figures, but, according to Professor Mendeleiew, they are well within the mark.

In 1891 the crop of the 50 governments of Russia in Europe, and of the ten governments of the kingdom of Poland, was inferior by one-third to the above average; this only gives 8⅓ pouds of wheat per inhabitant. This excessive diminution is the cause of the anxiety felt at the present time.

The number of people in Russia forms 7 per cent. of the total of the population of the whole world. Consequently the average of consumption in Russia should amount to 7 per cent. of the universal production. With regard to some products this proportion is scarcely observed. This is the case with coffee, the world's production of which is 50,000,000 pouds per annum. Russia consumes a little more than the above-mentioned average—400,000 pouds in place of 350,000. The same may be said of sugar (23,000,000 pouds in place of 21,000,000), and tobacco (3,000,000 pouds in place of 3,250,000). The consumption of other products greatly exceeds the average of 7 per cent.—for tea and salt double, and for alcohol nearly quadruple—30,000,000 vedros in place of 8,500,000 (vedro = 2·7 Imp. gallons).

Coming next to products which do not serve for purposes of food, it is seen that Russia supplies half of the world's production of naphtha (250,000,000 pouds out of 500,000,000), and only consumes one-seventh part of the quantity produced by her. With regard to the production of gold, according to the normal proportion Russia should supply only 700 pouds, whilst the actual production of this metal is 2,100 pouds annually. For flax and hemp Russia has also a production three and a half times greater than the admitted proportion.

In the face of these figures, says Professor Mendeleiew, how is it to be explained that from an economic point of view Russia is so backward as compared with England. It is because in many branches of production, coal in particular, she does not reach the average. The world's production of coal is 30,000,000,000 pouds per annum; the quota of Russia should be 2,100,000,000 pouds per annum; as a matter of fact it is only 400,000,000, that is to say, only one-fifth of the fair average. Of cast iron, Russia only produces 45,000,000 pouds, in place of 119,000,000. As regards the other metals (gold and iron excepted), Russian production is only one-eighth of the desired proportion.

IV.—LABOURERS' ACCIDENT INSURANCE IN AUSTRIA.

In an article on accident insurance of workpeople in Austria, which appeared in the *Handel's Museum* of February 18th, Dr. Leo Munk discusses the report recently issued by the Austrian Ministry of the Interior, containing statistics on the subject for 1890. This is the first annual report of the kind issued by the Austrian Government. A report was, indeed, issued last year, embracing, however, only the last two months of the year 1889. Owing to the comparative newness of the scheme in Austria it is as yet impossible to form an accurate idea of its scope from the present report. Many accidents are never reported, and their classification still needs amendment so as to correspond with the results of practical experience; besides, the fiscal principle on which the system is worked is such as to render it impossible to fix a correct ratio between the premiums and the compensations before the lapse of several years.

The number of industrial establishments of all kinds coming under the scope of the law in 1890 was 131,326, of which 78,133 are roughly grouped under the heading of Agriculture and Forestry, giving employment to 338,494 persons, the remaining 53,193 being classified as belonging to all other branches of industry, and employing 893,324 persons, whose wages are estimated at 235,264,000 gulden (the gulden = nominally 2*s.*) as compared with 1,682,000 gulden for the former categories. The knowledge of the rates of wages paid in the industries of agriculture and forestry is inadequate for explaining the lowness of the latter figure as compared with the former, but it may be mentioned that the average duration of the work of machinery in 1890 as regards agriculture and forestry was only 17·8 days, and this is stated to be one reason why the statistical data for these branches of industry have been to a great extent summarised.

As regards frequency of accidents reported, the transporting industries come first with an average of 66·5 per 1,000 employed; smelting and metallurgy, however, show the greatest proportion entailing disablement for a period exceeding four weeks, and, of the more serious accidents, viz, such as resulted in permanent injury, whether entailing total or partial disablement, the greatest proportion is found in the trades engaged in the working of wood. Fatal accidents occurred most frequently in quarries. It seems that on the whole persons engaged in the industries of forestry and agriculture ran far greater risk of bodily injury than those otherwise occupied; for, while the number of deaths through accident per 10 000 insured was only 5·8 among the latter, it was 14·4 among the former, the proportion of permanent injuries in the

two categories respectively being 49·9 and 70·7 per 10,000 insured. It is important to note that among all the 50 industrial categories grouped apart from those of agriculture and forestry, there is but one, viz. quarrying, in which the risk to life is so great, and there is not one in which the risk of permanent disablement is nearly so high as the average for the whole of the occupations coming under the group of agriculture and forestry; and consequently in this division the payments in compensation for injuries by far *exceed* the receipts from premiums, a circumstance which will need consideration in revising the tables of risk. The receipts of the seven territorial insurance districts and the Austrian Railways' Insurance Establishment amounted to 3,855,000 gulden during the period from November 1st, 1889, to the end of 1890, and of this sum only 205,597 gulden were paid in compensation for accidents. Dr. Munk is unable to account for the relative insignificance of this figure, but points out that owing to the financial system introduced into Austria known as the *Capitaldeckungsverfahren*, a sum of 2,622,000 gulden had to be laid aside as a capital to cover the annuities already granted.

As the annuities granted to persons suffering permanent disablement are fixed at 60 per cent of their average annual wages some idea of the latter may be gathered, although the period of observation is very short. The average annuity, and the estimated average wages in the seven territorial insurance districts and the Austrian Railways was as follows in 1890:—

District.	Average Annuity Paid.	Wages Estimated from Annuities.
	Gulden.	Gulden.
Vienna	241·40	402·3
Salzburg	179·06	298·4
Prague	150·48	250·8
Brünn	143·09	238·5
Graz	246·57	410·9
Trieste	306·17	510·3
Lemberg	94·22	157·0
Austrian Railways	388·21	647·0

In concluding, Dr. Munk expresses the hope that the Austrian Government will make use of their powers for revising certain categories of agriculture and forestry before proceeding to the general revision, and says that there is much in the report which shows that it was a mistake to limit the obligation of insurance among those employed in agriculture and forestry to such persons as were engaged in connexion with machinery.

V.—THE PRODUCTION AND CONSUMPTION OF GAS IN THE PRINCIPAL EUROPEAN CITIES.

A volume has recently been issued from the Government Printing Office at Washington containing the reports received from the Consuls of the United States in different foreign countries in answer to a circular from the Department of State as to the gas industry in the various countries.

The following particulars with regard to the chief European cities are taken from the report in question:—

St. Petersburg.—The city of St. Petersburg, numbering, according to the latest estimate, 1,000,000 inhabitants, has several gas companies in active operation at the present time. The old gas company, as it is still called, was established in 1835, and manufactures gas from bituminous coal. These works comprise 242 retorts, with an average of 7 retorts to each furnace, 1 Beale exhauster, 6 gas-holders with a total capacity of 750,000 cubic feet, and about 3,000 gasometers. The gas production is 180,000,000 cubic feet. There are 20 gas motors, ranging from 4 to 10 horse-power. The aggregate length of the mains is 28 miles, with pipes varying from 2 to 30 ins. in diameter.

The Metropolitan Gas Lighting Company of St. Petersburg supplies a large portion of the city with coal-gas, using 62,450 tons of coal per year. The price for lighting the streets for an aggregate of 3,200 hours has been 3*l.* 0*s.* 5*d.* per lamp. For Government buildings the price has been 6*s.* 1*d.*, and for private consumers 7*s.* 1*d.* per 1,000 cubic feet. Recently the company has reduced these prices to 4*s.* 8*d.* for technical purposes, 5*s.* 5*d.* for private consumption. These works contain three groups of condensers, six ordinary scrubbers, two "Standard" scrubbers, 32 purifiers, six gas-holders with a capacity of 2,000,000 cubic feet, five regulators, five gas-meters, and six steam engines. The gas production in 1887 was 637,496,200 cubic feet. There were 7,852 street lamps, 120,524 private burners, and 72 gas motors aggregating 319 horse-power. The total length of the gas mains is about 165 miles.

The gas works of Vassili Ostroff, an island on the north side of the river Neva, and forming a portion of the city of St. Petersburg, furnish a large portion of the gas for the inhabitants of the island. These works contain nine Biley's exhausters, and manufacture gas from coal in the usual manner. The returns from these works consist of 44,469 tons of coke, 2,893 tons of tar, and 5,416 tons of ammoniac water. The number of consumers is about 3,200, with an equal number of gasometers. The aggregate length of the main is about 27 miles.

The gas works of the Wiborg and old St. Petersburg portion of the city of St. Petersburg belong to a limited company and manufacture gas from Newcastle coal, the quantity of coal used being 7,717 tons per annum. The gas production in 1888 was 73,128,630 cubic feet. There were 1,457 street lamps and 10,500 private burners in the same year. The gas works of the Marshall Academy belong to the same company, and from both of these works there are obtained annually 5,152 tons of coke and 302 tons of tar.

In addition to the cities and towns enumerated above, employing gas for lighting and heating purposes, there are about 40 railway stations in the Empire lighted either with coal-gas or petroleum-gas and about 160 gas manufactories established in separate buildings for the use of factories, stores, banks, and other private enterprises of various descriptions.

The laws of Russia forbid the manufacture and use of water-gas, on the ground that the gas is injurious to health. There is a special article in the patent laws of the country to the effect that no mechanical device, nor any chemical combination producing articles injurious to the health of the people are patentable, and if patented under disguise or ignorance of this fact the patent becomes invalid. Many parties have made repeated efforts to introduce water-gas in Russia, but all such applications have been rejected, invariably meeting with the unanimous opposition of the Imperial Society for the Preservation of Health.

Berlin.—In the city of Berlin there are two gas companies: (1.) The City Gas Company, owned and operated by the city; (2.) The Imperial Continental Gas Association, owned and operated by an English company.

The former company has four separate gasworks in the city. The latter company has three separate gasworks in Berlin and suburbs.

It appears that privileges were granted to the English company as far back as 1827. By contract made with the town of Schönberg in 1854, this company has the exclusive right to lay pipes in that quarter of Berlin, which has since been acquired from Schönberg. These privileges may to a certain extent account for the difference in price between the gas supplied by the city works and that supplied by the English company.

During the fiscal year ended March 31st, 1889, there were nearly 4,000,000 cubic metres less gas used in the city of Berlin than in the preceding year. This decrease is supposed to be due to the influence of the growth of electric lighting and especially to the successful efforts of the lamp makers in producing lamps with larger and better burners.

The number of electric lights in use in Berlin during the year ended March 31st, 1889, was 66,650.

During the calendar year 1887 the city of Berlin consumed 47,299 tons of petroleum, and in the year 1888, 54,138 tons, or an increase of 15 per cent.

The quantity of gas produced by the city gasworks during the year 1889 was 90,000,200 cubic metres.

The number of jets fed by the city gasworks was: Public, 17,509; private, 798,631; gasworks and offices, 3,309; total, 819,449.

The quantity used by the public lights was 11,489,208 cubic metres; by the private lights 68,608,759 cubic metres.

The city gas works used 314,264 tons of coal from the Silesian coal fields, the product in gas for each ton of coal being 287·05 cubic metres.

The length of the net work of pipes used by the city gas works was 693,493 metres.

The value of the gas used in gas works and bureaus was estimated at $13\frac{1}{3}$ pfennigs per cubic metre. The value of the gas used for other purposes than lighting was estimated at 12·8 pfennigs per cubic metre. The value of the gas used for lighting was estimated at 16 pfennigs per cubic metre.

The total income of the city gas works was as follows:—During the year 1889, from gas, 11,552,591 marks; use of gas metres, 268,323; cokes, tar, &c., 4,443,357; total, 16,264,271.

The total expense of the city gas works during the same year was as follows:—Cost of coal, 5,614,245 marks; firing, 701,626; purifying material, 10,596; wages, 588,918; interest on plant, 884,270·11; other expenses, taxes, insurance, &c., 3,414,789; total, 11,214,444.

These figures show an excess of receipts over expenses of 5,049,826·45 marks.

There are no official statistical data at hand respecting the income and expenses of the English company which supplies one-third of the gas consumed in the city of Berlin.

Paris.—The gas company known under the name of *Campagnie Parisienne d'éclairage et de chauffage par le gaz*, which has the sole permission to furnish the city of Paris with gas, was founded in the year 1855. The capital subscribed amounted to 3,377,500*l.*, divided into 336,000 shares at 10*l.* 1*s.* each. These are worth now about 52*l.* 1*s.* 8*d.*

The total receipts for the year 1889 amounted to 4,247,780*l.*, of which 3,243,410*l.* were for gas, 677,924*l.* for coke, and 142,112*l.* for other by-products. The expense, amounting to 2,645,909*l.*, comprised 847,379*l.* for coal, 175,483*l.* for labour, 63,356*l.*, for engineers and salaried working staff; 42,535*l.* for the central administration, 12,062*l.* for the direction, 361,201*l.* for redemption of capital, 273,046*l.* for municipal charge, including the tax of 1*d.* per cubic metre.

The net profits for the year amounted to 1,588,229*l.*, of which 1,019,281*l.* go to the stockholders, and 360,614*l.* to the city of Paris. The dividend for the year was 3*l.* 2*s.* 6*d.*

The gas is manufactured from coal by the ordinary process and is assayed every day before delivery as regards its lighting power

and purification by company agents, and also by agents appointed by the city authorities.

According to contract the gas delivered for consumption by the Parisan gas company must be perfectly purified and its lighting power under a pressure from 2 to 3 millimetres of water, and an average consumption of 105 litres of gas per hour, be equal to the light of a lamp burning 42 grammes of pure colza oil per hour.

The report of the Paris gas company for 1889 showed that the consumption in the year amounted to 312,000,000 cubic metres (11,013,000,000 English cubic feet).

The annual consumption of gas in Paris has gone up from 218,813,875 cubic metres in 1879 to 297,258,070 cubic metres in 1888.

The annual consumption of gas rose during the same period for the whole of France from 467,500,000 cubic metres in1879 to 628,000,000 cubic metres in 1888.

The number of subscribers to the Paris Gas Company for 1889 was 224,119, an increase of 11,604 over the year 1888.

The substitution of electric lighting in a number of theatres, public establishments and thoroughfares has been compensated by the increased use of gas for domestic purposes, and the day consumption now exceeds 26 per cent of the total, and equals one-third of that in the dark hours.

The Paris Gas Company delivers the gas used for public lighting at the rate of 3*s.* 5*d.* per 1,000 cubic feet, and for private use at the rate of 6*s.* 8*d.* per 1,000 cubic feet.

The apparatus which permit the use of gas in kitchens (cooking stoves, ovens, gridirons, &c.), in dressing rooms, kettles and bath heaters, in private apartments (stoves) are becoming more and more frequently used.

The fact that in Paris one-fifth of the gas supplied by the gas works is consumed during the day indicates the importance of consumption other than for lighting purposes.

The men in charge of the furnaces are paid 2*s.* 8*d.* per 1,000 kilogrammes coal; they are on duty 12 hours each day, and their daily earnings are from 9*s.* 7*d.* to 12*s.* 1*d.* Coal carriers and cartmen are paid from 3*s.* 4*d.* to 4*s.* 2*d.* for a day's work of ten to twelve hours.

The coal used in the manufacture of gas by the Paris company is obtained in France, Belgium, England, and Germany at an average price of 12*s.* 1*d.* to 14*s.* 7*d.* per ton.

Brussels.—Brussels has its own gasworks, maintained by the municipality. The suburbs are supplied by the Company General and Imperial Continental Gas Company.

Gas is obtained by the decomposition of coal by heat. The coal is heated in angular cylinders, holding about 200 pounds of broken coal. The gas is passed from the cylinders into coolers, is then purified and ready for use. Two hundred pounds of coal yield on an average about 25 cubic metres of gas, 8 pounds of coal tar, and $2\frac{7}{8}$ bushels of coke. About one-third of the coke

thus obtained is employed in heating the cylinders, the remainder is sold for domestic use.

The candle power is 7½ candles, or 105 quarts of gas per hour. Approximate annual output of the city of Brussels, 14,226,787 francs. Number of consumers, 19,152.

The price of gas differs more or less according to locality, varying 10 to 25 centimes per cubic metre, as follows.

In the city of Brussels, day consumption, 10 centimes per cubic metre; night consumption, 15 centimes per cubic metre. The suburban consumers of Etterbeck, Forest, St. Gilles, Ixelles, Kochelberg, Molenbeck and Uccle, 15 centimes per cubic metre. St. Jean-Ten-Noode, 18 centimes; Schaerbeck, 20 centimes; and Laeken, 25 centimes per cubic metre.

Wages paid to workmen employed in the Brussels gasworks vary from 3 to 5 francs per day for 11 hours' work. In the provinces of Brabant, Hainant, and Namur, 11 and 12 hours' labour is exacted for wages varying from 2 to 4·50 francs per day.

Rome.—The Anglo-Romano Company for the lighting of Rome have the monopoly of supplying the city both with gas and electricity for purposes of illumination.

They have two gasworks, one on the Via dei Cherchi and one on the Via Flaminia. The process described is that employed at the larger works on the Via dei Cherchi, but it is substantially the same at each.

The coal used is from Newcastle, mixed with 5 per cent. of Liverpool cannel coal and costs from 1*l.* 5*s.* 9*d.* to 1*l.* 6*s.* 7*d.* delivered at the works. At this price the company has a contract which has some time to run, although the market price has advanced to about 2*l.* 0*s.* 3*d.* per ton.

The retorts used are of clay, and measure 21½ ins. wide, 14 ins. high, and 9 ft. 6 ins. long. They are made in Italy, are much better than the French manufacture, and are equal to the English, but cost less. They are placed in groups of seven and eight around the furnaces. There are 78 furnaces that heat 562 retorts. Each retort has a capacity of 160 kilos. (353 pounds) and is charged and drawn by hand.

All the furnaces are duplex, the invention of Mr. Walter R. Jones, the engineer of the works, who has secured patents on them in Europe and the United States. This pattern of furnace has been in use since 1884, and has given excellent results, all the regenerative furnaces having been transformed in preference.

The number of public gas lights in Rome in 1888 was 6,033, the public consumption of gas was 115,650,000, and private consumption 381,550,000 cubic feet. The cost per 1,000 cubic feet for public consumption was 5*s.* 7*d.*, for private 6*s.* 7*d.*

Twelve hours constitutes a day's labour, and the wages paid are about as follows:—Head mechanics per day, 4*s.*; mechanics and machinists, 2*s.* 10*d.*; superintendent of firemen, 4*s.*; firemen's corporal, 3*s.* 7*d.*; firemen, 3*s.* 2*d.*

For good conduct a bounty is given to the firemen's corporal of 8*s.* 1*d.* A pension of 4*s.* 2*d.* per week is paid to the widows of workmen so long as they remain widows.

Constantinople.—Gas has been in use in the city of Constantinople for the last 30 years, but was limited to one part of the city, namely Pera, and is the residence of all Europeans and foreigners in general, as well as of all the ambassadors, ministers, consuls, &c.

There are two gas companies in Constantinaple. The first is a Turkish company, under the general management of and belonging to the Imperial Turkish Government, and is called Imperial Gas Works. The factory of this company is situated in Dolma Baghtché, a suburb on the Bosphorus, and furnishes gas for the use only of Pera, the Imperial palaces on the Bosphorus, the lower end of Pera, which is called Galata, and of one or two villages on the Bosphorus.

The second company is a Belgian-German concern, which obtained the necessary concession from the Turkish Government about two years ago, and is called *Société Ottomane pour l'Éclairage de la ville de Constantinople.* This company has established a factory at the Seven Towers, on the Sea of Marmora, and has the privilege of supplying gas only to the other side of the city of Constantinople, properly called Stamboul, which is largely inhabited by the Turks, including the suburb of Eyoub in the Golden Horn.

It is impossible to ascertain the amount of money invested in the industry by the first Government company. The amount invested by the second, the Belgian-German, is 152,078*l.*

Process of manufacture: The factory of the Belgian-German company was constructed by Mr. Kloenne de Dortmund. It has a gasometer of 12,000 cubic metres, with furnaces and four batteries, with eight retorts each. The other machinery is in proportion.

The machinery hall is 90 metres long by 15 metres wide, the furnace hall is also 90 metres long by 15 metres wide.

Brilliancy of gas, 12 to 14 candles.

The approximate annual output is 1,000,000 cubic feet in Stamboul, and 3,000,000 cubic feet in Pera and Galata.

Number of consumers: The Belgian-German company has about 10,000 to 12,000 flames for the present. No statistics can be obtained from the Government company,

The price of gas per 1,000 cubic feet is 7*s.* 4*d.*, with 25 per cent. discount for public fixtures.

The use of gas stoves for heating and cooking is quite limited.

The wages of the employés of the Belgian-German company range as follows: Director, 1,000*l.* per annum; chief engineer, 680*l.*; quartermaster, 165*l.*; other employés, 40*l.* The hours of labour are about 12, with rests two or three times during the day or night.

The material used is English Newcastle and Cardiff coal. The price is 1*l.* 6*s.* 3*d.* to 1*l.* 7*s.* 3*d.* per ton.

Christiania.—Christiania, the capital of Norway, situated at the inner end of the Christiania Fiord, has a population of 145,000.

The Christiania gas works belong to the community. The amount invested by the city is reported to be 91,960*l.*

The gas produced is the ordinary coal-gas. The process done by sulphurous acid and ferric oxide.

The power of gas is equal to 16 candles.

The annual output is 167,900,000 cubic feet. Number of consumers, 3,205.

Price of gas for illumination, 4*s.* 9*d.* per 1,000 cubic feet, with 5 or 10 per cent. discount for consumers, in proportion to quantities used. Price of gas for cooking and technical purposes, 3*s.* 2*d.* per 1,000 cubic feet without discount.

Number of gas stoves for heating, 20; cooking, 300; gas motors, 13.

Wages of employés, from 2*s.* 3*d.* to 3*s.* 4*d.* for 12 hours of labour per diem.

New Pelton coal from Newcastle. Their cost in 1889, 14*s.* English per ton.

Copenhagen.—In the year 1886 Danish gas works manufactured 980,631,720 cubic feet of gas. Out of this amount Copenhagen produced 594,517,000 cubic feet, or about 60 per cent. of the whole kingdom's gas, and 1½ times more than all the other gas works in Denmark together. If the suburb of Frederiksberg be counted as part of the capital, Copenhagen consumes more than twice as much gas as the rest of the country.

Of gas manufactured in Denmark, 83·8 per cent. is produced by municipal gas works, and only 16·2 per cent. from private works. A steady increase has taken place during the last years. In 1881 the production was 705,731,600 cubic feet, and the increase has therefore been 38·9 per cent. The increase in the gas production at the Copenhagen gas works was during the same period 1881–86, 27 per cent., or about 4½ per cent. a year. The other municipal gas works had at the same time an increase of 63 per cent., while private works had about 60 per cent., equal to a yearly increase of about 10 to 12 per cent.

Berne.—The money invested in the gas works at Berne amounts to 1,728,569 francs.

Process of manufacture: gas is manufactured exclusively in retort stoves. The manufacture of carbonated gas is not known in Switzerland.

It is prescribed here that a gaslight consuming 150 litres per hour must have at least a power of 16 Amplacetats lamps.

Approximate annual output: in 1889, 1,872,470 cubic metres gas were produced at Berne.

At the end of 1889 Berne had 1,741 gas metres for lighting purposes, 32 for machines, and 244 for gas stoves; total consumers, 2,027.

Price of gas for illuminating purposes, 25 centimes per cubic metre.

The use of gas stoves is annually increasing. The price of gas for this purpose and machines is 20 centimes per cubic metre.

Wages: stokers receive from 3·60 to 4 frs. for nine hours' work; still their presence is required for 12 hours, of which time they have three hours idle.

For the manufacture of gas, Saar (Germany) and St. Etienne (France) coals are now used, with boghead of Autun (France), Tyne boghead (England), and pitch coal from Bohemia to gain the prescribed light power.

Price of coal at the gas works, Berne: Saar, per 100 kilogrammes, 3·24 frs.; St. Etienne, 3·22 frs.; French boghead, 7·30 frs.; Tyne boghead, 6·50 frs.; Bohemian pitch coal, 4·70 frs.

Greece.—Cities using gas: Athens, Piræus, Patras, and Corfu.

Names of companies: Athens, *Compagnie d'Éclairage pour le Gaz pour la France et l'Étranger, Siège social,* Paris. Piræus, *Société Belge.* Patras, the municipality is owner of the gas works. Corfu, English company.

Amount of money invested in the industry: Athens, 2,000,000 frs.; Piræus, 1,050,000 frs.; Patras, 800,000 frs.

The process of manufacture is by distillation of coal.

The candle power of gas is 5·16 and 10 candles, counted in carcels.

The approximate annual output cannot be given.

Number of consumers: Athens, 1,400; Piræus, 350; Patras, 300.

Price of gas per 1,000 cubic feet: Athens, 37 lepta the cubic metre; Piræus, 35; Patras, 27.

Some gas stoves used for cooking, none for heating.

Wages, 3 frs. to 3·50 frs. per day. Hours of labour, 9 to 10.

The material used in the manufacture of gas is English coal—Cardiff and Newcastle; about 35 drachmas the ton delivered in the harbours of Piræus, Corfu, or Patras.

VI.—THE FRENCH GLOVE INDUSTRY.

A correspondent of the *Journal des Economistes* says that among all those who are in the habit of wearing French gloves there are very few who know exactly how these articles are manufactured. It is certainly known that Grenoble is the centre of the production, but of the 20,000 persons who annually visit the capital of the Department of the Isère, probably not more than ten have the curiosity to visit a glove factory, and to study the process of manufacture.

At Grenoble alone about 1,200,000 dozen pairs of gloves, representing a value of from 1,400,000*l.* to 1,440,000*l.*, are on an average annually produced, and in this production 25,000 persons of both sexes are employed (4,000 men and 21,000 women and children), and who within a radius of 37 miles from Grenoble, and principally in the valley of Gresivaudan, live by this industry. This glove-making industry, says the *Journal des Economistes*, is a particularly interesting one from a social point of view, since it forms one of the rare occupations in which women can engage and in which they are well paid for their labour. Moreover, it has the additional advantage that the nature of the work is such that it can be performed by the workwoman at her own home, and therefore does not separate her from her husband and her family.

The skin from which the gloves manufactured at Grenoble are made are furnished exclusively by kids and lambs in the following proportions, 95 per cent. of the former and 5 per cent. only of the latter. The kids themselves from which the skins are obtained must be of the sucking age otherwise their skins harden and are only good for the manufacture of boots and shoes. They are naturally of very small size, out of each one, in fact, only three gloves, one pair and a half, can on an average be cut, and Grenoble, therefore, requires for the manufacture of its 1,200,000 dozens of gloves the sacrifice of 9,600,000 kids—France itself not being able to supply this quantity, there is necessarily a large importation of skins from abroad.

The reason which is given for Grenoble, above any other city of France, becoming the centre of this particular industry, is said to be that it is not so much owing to the number of kids supplied by the Alps as to the particular qualities of the town water for the dyeing of the skins. The dyers have brought their process to such a pitch of perfection as no others have been able to do, and a Grenoble factory of any importance would be able to supply gloves if required of three hundred different tints, and should none of these tints suit the requirements of a purchaser his orders are executed according to any pattern he may submit. The correspondent of the *Journal des Economistes* says that in the dyeing of the skins, the beautiful and delicate shades are only obtained by the use of a particular acid. This acid is simply urine, and

chemists have sought in vain for anything that for the purpose could be equalled to it or substituted for it.

The following description will convey an idea of the different operations necessary in producing the glove from the moment of the arrival of the skins from the leather-dressers to the moment when the manufactured article is sent out of the factory packed up and addressed to the wholesale dealers.

The skins being heaped up in piles are first subjected to a very critical examination. Certain of the workpeople deputed for the purposes carefully examine each skin, and decide according to the grain, fineness, and its powers of resistance what kind of dye it is most adapted for. One feature of this examination is also to decide upon the question as to whether the skin should make *glacé* kid gloves or those known as *gants de Suède*. These two descriptions which appear so different to the touch are, it should be observed, identical, the only difference being that the *glacé* is worn as the animal itself wears its skin, the outside corresponding to the hairy side, whereas with the *Suède* it is just the reverse—what corresponds to the hairy side being worn next the skin.

After the first examination the skins are sent to the dyers and are returned ready for cutting up, and at this point they are subjected to a second and more delicate trial, which is generally undertaken by experienced foremen. It consists of determining by inspection the number of pairs of gloves that each skin will supply, and this being done they are handed over to the workmen and finally the skin is ready for what is known as the *dolage*. This operation consists of shaving the leather with a very sharp instrument in such a way as to give it the minimum thickness corresponding to the maximum of suppleness. This operation is a particularly delicate one, and to be an adept at it it is necessary for a workman to pass a two years' apprenticeship, and the most skilled workmen cannot prepare more than six skins an hour. For the manufacture of *Suède* gloves, the skins of goats which have been imported from South America are generally used. The reason of this is that in the pampa particularly, the kids are not shut up in stables but from the day of their birth they are allowed to run about after their mothers in the midst of the bramble, the consequence being that their skins are scratched, and, therefore, useless for *glacè* kid gloves.

The skin having undergone the shaving process is then ready for the stretching, an operation which consists of drawing the skin up and down to determine its limit of elasticity, and then for what is called the *étavillonage*, which consists of applying the same skin, divided into squares of the desired length, upon an imitation hand perfectly flat, which is fashioned out of cardboard. The part of the working glover finishes with this operation, but formerly it was not so. It was then necessary for him to trim the skin to the size of the hand, and with a pair of scissors to cut out the spaces separating the fingers. For this work has now been substituted an invention which permits of five or six pairs of gloves being treated at once. This is the sole introduction

of machinery in the art of glove-making, and has been instrumental in reducing by half the labour of the workmen.

The gloves are now ready for the female operatives, and are packed in huge cases, and sent into the mountains, where certain sewing contractors receive them, make themselves responsible for them, and divide the work among a considerable number of women who are answerable to the contractor.

In certain factories the sewing is done in the building itself, and the women who are engaged in this operation are seated each in front of a small sewing machine worked by steam. A simple pressure with the foot sets the machine in motion or stops it. It is estimated that the time occupied by the female operatives in sewing a pair of four-button gloves, ordinary size, is about one hour, and the various operations of the cutters require an equal time, so that two hours are necessary for the production of one pair of gloves.

The work of glove-making is not ended, however, with the sewing, the article has still to pass through certain stages, such as the testing of the stitches by the use of the glove-stretcher, the stamping with the names of the customers, the examination of the goods with a view to the rejection of all those showing any stain or any imperfection whatever, and finally the packing. To show the multiplicity of operations to which gloves have to be subjected in the course of their manufacture, it may be said that each pair passes through about two hundred hands from the moment that the skin leaves the dressers until the gloves are purchased by the intending wearer. As regards the price of gloves, at Grenoble, where only the superior kinds are made, they are estimated at from 27*s.* 2*d.* to 28*s.* 9*d.* the dozen, very little difference being made between the *Suède* and the *glacé*.

The extreme prices are 12*s.* 9*d.* per dozen for the second quality, and 2*l.* 8*s.* for the superior quality, taking the four-buttoned glove as a sample. At Vigan and Milhau are produced the cheapest kinds, which are sold at from 9½*d.* to 1*s.* 2½*d.* in the retail trade.

With regard to the wages of the workpeople, they are proportioned as follows:—

Men, for a working day of 10 hours, are paid, on an average, 4*s.*; women for the same length of time, from 1*s.* 7½*d.* to 2*s.* 9½*d.* with an average of 2*s.* Both men and women are paid for piece-work.

Those engaged at fixed salaries are paid at the following rates: sorters of skins, dressers, foremen, &c., from 72*l.* to 160*l.* per annum; women, from 3*l.* 12*s.* to 4*l.* per month.

VII.—FRENCH SILK INDUSTRY.

With reference to the present condition of the silk industry of France, Sir J. A. Crowe, Her Majesty's Commercial Attaché at Paris, in his annual report, says:—

In studying the causes which may have led to a drooping of French business in silks we shall find that the Exhibition of 1889 gave such an impulse to manufactures in France that production suddenly rose to figures which had not been attained since 1876. From 1870 to 1876 inclusive, Lyons alone produced annually from 435,000,000 frs. to 458,000,000 frs. worth of silks. From that date till 1888 the out-turn only rose once to 395,000,000 frs., whilst, in 1889, it was 402,000,000 frs. The same thing is true of St. Etienne, where the produce of all looms hardly yielded 65,000,000 frs. (2,600,000*l.*) in 1885, but exceeded 102,000,000 frs. (4,080,000*l.*) in 1889; the total production for all France being 660,000,000 frs. (26,400,000*l.*) in that year.

Judging by the importations of raw materials of the value of silk-making in 1890 and 1891, we come to no other conclusion than that the impulse which developed trade in silks in 1889 has lost its momentum completely since that date. In 1889 the imports of silk and waste silk were worth 291,629,000 frs. (11,665,160*l.*), in 1890 they were worth but 239,075,000 frs. (9,563,000*l.*), in 1891 they had only recovered to 282,573,000 frs. (11,302,920*l.*), so that even the near prospect of a new duty of 2*s.* 6*d.* a kilo. on thrown silk has only brought up imports to a figure below that of 1889.

Exports tell the same tale. They were valued for silk and silks stuffs at 405,000,000 frs. (16,200,000*l.*) in 1890, at 390,156,000 frs. (15,606,240*l.*) in 1891.

French silk producers have struggled hard during last year to obtain a large protection for seed and dry and fresh cocoons. There was every prospect of their succeeding until it was settled that something should be done for them by the enactment of bounties. By a law which has been recently passed, silk cultivation and education will receive for six consecutive years a bounty of 50 c. (5*d.*) per kilo. of cocoons, and payments of 100 frs., 200 frs., and 400 frs. per pan per annum for the winding from cocoons hatched in France. It seems to be very doubtful whether this bounty will be really beneficial. It will be cheerfully paid by the silk manufacturers, who admit that there are 140,000 breeders and 15,000 silk spinners of both sexes in France, who deserve as much encouragement as the 450,000 hands who weave 18,000,000*l.* worth of silk and export 10,000,000*l.* worth of silk goods every year. The bounty will not exceed 130,000*l.* a year, and is probably less injurious than the alternative measure of a Customs duty on cocoons. But what the bounty is meant to protect is a class of goods which requires no protection of any kind. France

produces dearer cocoons and silks than any other country. Her production is limited, and finds a ready sale abroad as well as at home. But French silk manufacturers could not live if they were obliged to supply themselves with French silk at 2*l.* 4*s.* instead of Chinese silk at 1*l.* a kilo., and they certainly could not weave 4,000,000 kilos. of silk into stuffs if they were limited to the French supply, which hardly exceeds 600,000 kilos. a year.

The extent to which losses have been incurred by French silk and other manufacturers in consequence of the enforcement of the McKinley tariff is shown very plainly by the returns of French exports of silk, woollen, and leather wares to the United States. In silks alone the decrease of weight is 500,000 kilos. In woollens, the articles, cloth casimers, &c., are only taken to the extent of 412,000 kilos. in 1891, as against 1,117,000 kilos. in 1890. Other stuffs decrease from 1,778,000 kilos. to 1,237,000 kilos. Gloves show a falling off from 336,000 to 263,000 kilos. The money loss to France in silks is of itself about 18,000,000 frs. (720,000*l.*).—(*No.* 981, *Foreign Office Annual Series.*)

VIII.—DETERIORATION OF INDIAN COTTON.

The following is extracted from the *Times of India* for the 9th January. The deterioration of Indian cotton and its fall in value have been the subject of much discussion, both among merchants and manufacturers, but no remedy has been proposed that has received the sanction of all the parties interested. It is plain that until some public danger arises from the adulteration of cotton, the law cannot interfere beyond the existing provisions regarding the execution of contracts. It is equally plain that something should be done, beyond all that has been done heretofore, in order to restore the damaged character of Indian cotton in Europe. If Indian yarns or grey cloths fell below the quality required in their respective markets, the manufacturer would at once endeavour to find a remedy; but Indian raw products are grown on principles totally different from those which govern any factory. While, in other countries, cotton is produced by men with more or less capital, and with an intelligent knowledge of their work, Indian cotton is grown by the poorest of cultivators, without capital, education, or ambition. They are frequently in debt, and have to depend on the money-lender for sustenance while awaiting their harvest, and even for seed in the following season. The Indian labourer, whether skilled or unskilled, has no standard of excellence for his work. His market is one where low price is the first consideration, and he is not in a position to command higher remuneration, even if his individual effort is superior to that of his neighbours. The ryot, therefore, accepts the market, or rather the money-lenders' price, and gives as little

value as possible in return for it. He cannot be got at like the owner of 1,000 acres in Egypt or in America for a discussion on the subject of seed, manure, watering, or rotation of crops, and yet he is the only man on whom the quality of the cotton crop depends. The zemindar and the rajah are not yet sufficiently enlightened to take a practical interest in agriculture.

There seems to be only one way out of the present difficulty in procuring good cotton, and that depends on the co-operation of the Indian mill-owners—the only men whose personal interests and resources could insure a promise of success. The mill-owners have always shown themselves to be an extremely enterprising and liberal-minded body of men, and should our scheme be feasible on the face of it, it will, we hope, be carefully considered. We argue, then, that the mill-owners could easily take the matter into their own hands. They must, however, be prepared, not only to take a leading position as cotton-growers, but prepared also to lose a certain sum per annum, if need be, for several years, in the venture, until their better method of cultivation shall have had its desired effect in the district. It is not so much to produce a new and hitherto unknown staple, as to restore qualities that have of late years disappeared from the districts. For this purpose no startling innovations in implements are needed. Indian spinners have now the machinery and the experience necessary for the spinning of fine yarns, but the requisite cotton can only be obtained from abroad, and the trade in the finer fabrics and in sewing thread must remain beyond their reach until the cultivation of the better qualities is restored. Ahmedabad, a quarter of a century ago, used to send some of the finest Indian cotton to Bombay, and there is no reason why it should not again take a leading place among Indian cotton districts, if the right means are used. The best cottons, those with the longest and strongest fibres, are grown in countries where the rain is frequent or where irrigation is carried out in a systematic manner. In the cotton districts of the United States the rains are sufficiently frequent to provide all the moisture needed for the plants. In Egypt the cotton plants receive a copious supply of Nile water every ten days. It either flows on to the land from raised canals or is pumped up by steam or by animal power. The water in appearance is very like that of Indian rivers in flood, and it carries in suspension an amount of alluvial soil that adds greatly to the fertility of the land. Water and manure must be provided in India in sufficient quantity if good cotton is to be produced, and this should be one of the first considerations in the scheme we would propose. The vicinity of Ahmedabad recommends itself for several reasons as a suitable site for a cotton farm. The soil is all that could be desired. The town possesses large cotton-mills containing all the most recent machinery, and the sewage of the town, which could be led to a convenient distance at very moderate cost, would be a valuable acquisition to the cultivators.

IX.—SOUTH AUSTRALIA AND VICTORIA COMPARED.

A controversy, of interest to the initiated, has for some time been carried on between the statisticians of the colonies of Victoria and New South Wales, each claiming—and supporting the claim by a large array of facts and figures—the premier position as regards the public and private wealth of their respective colonies.

The appearance of a pamphlet by Mr. H. H. Hayter, the Government Statist of Victoria, is taken by the *Adelaide Observer* as a suitable opportunity of instituting a comparison between the results achieved in Victoria and those secured in South Australia.

"It may not be amiss to remind our readers, says the *Observer*, that Victoria is nearly as large as the Island of Great Britain, whereas South Australia—including the Northern Territory—is ten times that extent. Victoria has a population of more than 1,140,000, or 13 persons to the square mile. South Australia has only 320,000, or nearly four square miles to each person. The public and private wealth of Victoria is estimated at 590,862,000*l.*, the former in the proportion of 118*l.* per head, and the private wealth in the proportion of 400*l.* per head, making together 518*l.* The wealth of the United Kingdom is quoted at 270*l.* per head. The figures as to private wealth are of necessity largely conjectural as to the amount, and still more so as to the items which are included as wealth. We are on more solid ground when we come to an estimate of the public wealth. The public revenue of Victoria for the last financial year was estimated at 8,343,586*l.*, or 7*l.* 7*s.* 3*d.* per head. In South Australia the aggregate receipts were 2,732,000*l.*, or 8*l.* 14*s.* per head. This was the largest revenue of any Australian colony in proportion to its population. This comparative magnitude of the revenue here might be a matter for regret if it were chiefly made up of taxation. This, however, forms but a small item of the whole amount, for whereas in Victoria the taxation is 3*l.* 9*s.* per head, in South Australia it is only 2*l.* 12*s.* 8*d.*, the remaining amount, or nearly three-fourths of the total revenue per head, being made up chiefly from revenue yielded by railways, water-works, post offices, telegraphs, and other reproductive works and services which are in no sense a burthen on the country, but which, on the contrary, enable the people to carry on with greater facility and to the best advantage their various pursuits. For instance, the railways of South Australia contributed 3*l.* 16*s.* 4*d.* against an average of 2*l.* 8*s.* for all the colonies, the proportion in Victoria being 2*l.* 17*s.* per head. The public debt of Victoria at the present time amounts to 43,600,000*l.*, or 38*l.* per head, whilst that of

South Australia is 19,900,900*l.*, or 63*l.* per head. Mr. Hayter emphasises the remark which has frequently been made:—'In 'comparing the Australian debts with those of other countries 'it is important to have regard to the fact that the debts of those 'colonies have been incurred almost entirely either for repre-'ductive works or for permanent improvements of great utility 'to the country, whereas those of most other countries were 'contracted for prosecuting wars or covering revenue deficits. This statement applies with special force to South Australia, seeing that only one-eighth of the borrowed money is not directly revenue-producing, and this small per-centage has been expended on permanent works, such as defence, State schools, public buildings, harbours, roads, bridges, &c., all of which tend to the advancement of the material prosperity of the country. The South Australian railways, of which there are 1,660 miles in working, and constructed at a cost of 11,404,726*l.*, returned last year 5¼ per cent. over and above the cost of maintenance and working expenses, the net proceeds being 602,000*l.* as against 236,602*l.* five years ago. In Victoria, according to Mr. Hayter, there are 2,763 miles of railways actually opened, the cost of which has been 35,518,000*l.* In the sister colony railway construction has been carried on with such rapidity of late years that one-fourth of the mileage has been opened so recently as within three years, and possibly the traffic has not had time to develop. It is undoubtedly a point in favour of South Australia that, whilst her lines only cost for construction 6,846*l.* per mile, those of Victoria have cost 12,855*l.* In both the colonies very material reductions have been made in the rates of freight charged.

"The interest on Victoria's debt amounts to 1,672,816*l.*, for which it was necessary to raise only about 25 per cent. by taxation; but, as regards South Australia, the Premier stated in his Budget speech that "the general revenue had to pay interest on less than 2½ millions,' leaving only 12½ per cent. of the interest to be derived from other sources than the revenue from public works of a reproductive character. Railways constitute the chief asset, and the net returns on their cost are, as shown by the latest figures, as follows:—South Australia, 5·25 per cent.; New South Wales, 3·06 per cent.; New Zealand, 3·02 per cent.; Victoria, 2·9 per cent.; Queensland, 2·07 per cent.

"Although the most recent issues of bonds carry interest at 3½ per cent., it may be taken the Australian stock generally carries 4 per cent. interest. It is gratifying to know that the whole of the railways of Australia return collectively 3¼ per cent., and it is especially satisfactory to find that South Australia heads the list with 5¼ per cent. There is another subject not referred to by Mr. Hayter, which it is desirable to mention. We allude to the increase in the volume of the trade of South Australia during the last five years since the development of the great Barrier mines. The total imports and exports have advanced from 11 to 19½ millions, or from 36*l.* to 62*l.* per head of the population; and this remarkable advance is brought into still greater prominence by

the fact that during the same period the external trade of Victoria has decreased to from 34*l.* to 33*l.*, and that of New South Wales from 43*l.* to 41*l.* per head, or practically has remained stationary. In the proportion which the annual revenue bears to the public debt, Victoria is undoubtedly in a far better position than South Australia, but as regards the productiveness of South Australia public works occupies the superior position. If, however, we exclude from our calculation the amount of the public debt for which South Australia has not to provide interest by means of taxation, but which provides its own interest, the result is highly satisfactory. Practically the debt is $2\frac{1}{2}$ millions, or a little more than three times the annual receipts from taxation."

X.—THE BRITISH SECTION OF THE CHICAGO EXHIBITION.

The following is an extract from the prospectus of the Royal Commission for the British Section of the exhibition to be held at Chicago in 1893, which has been forwarded to the Board of Trade by Sir H. T. Wood, M.A., Secretary to the Royal Commission for the Chicago Exhibition:—

Under date of the 27th August 1891 Her Majesty was pleased to issue a commission to the Council of the Society of Arts, authorising them to act as Commissioners for the Universal Exhibition, which, pursuant to an Act of Congress, and in accordance with a proclamation made by the President of the United States of America, will be held at Chicago from May 1st to October 30th, 1893.

As the funds granted by Her Majesty's Government will not suffice to defray all the expenses of the section, it is necessary that they should be supplemented by payments from the exhibitors. A charge will therefore be made to each exhibitor based on the amount of space occupied, and calculated on the following scale:—For spaces not exceeding 100 sq. ft., 5*s.* per sq. ft. For spaces exceeding 100 sq. ft. and not exceeding 200 sq. ft., 4*s.* 6*d.* per sq. ft. Exceeding 200 and not exceeding 300 sq. ft., 4*s.* per sq. ft. Exceeding 300 and not exceeding 500, 3*s.* 6*d.* per sq. ft. Exceeding 500 and not exceeding 750, 3*s.* per sq. ft. Exceeding 750 and upwards, 2*s.* 6*d.* per sq. ft. The minimum charge will be 5*l.*

It is not expected that the total receipts from all sources will more than suffice to defray the cost of an adequate representation of British industry; but should there be a sufficient surplus after the payment of all the costs of the section, the Royal Commission will refund the balance *pro rata* with the amounts contributed by the several exhibitors. The amount produced by the payments of exhibitors will therefore be treated as a guarantee fund to

be expended if necessary, but if not, to be refunded to the contributors.

The exhibition is situated in Jackson Park, within the southern limits of the city of Chicago. The principal buildings are devoted to the following main divisions:—(1.) Fine Arts; (2.) Manufactures and Liberal Arts; (3.) Agriculture; (4.) Machinery; (5.) Electricity; (6.) Mines; (7.) Transportation; (8.) Horticulture. In all these, space has been allotted to Great Britain, though it is expected that the principal British Court will be that in the building of manufactures and liberal arts, since the privilege has been conceded to this country of massing all or most of its exhibits together, should such a course prove desirable.

Exhibitors' goods will be transmitted direct in bond to Chicago, where the usual Customs examination will be made. Goods for exhibition only will not be liable to duty, but on goods sold the usual rates will have to be paid. Goods can be sold in bond at prices independent of the tariff, the duties being payable by the purchaser.

The American railroad companies propose to carry goods back from the exhibition free, charging the usual rates for the outgoing journey. These rates, it may be noted, are low in comparison with those usual in European countries. It is hoped that special terms for exhibition goods traffic may be obtained from the Atlantic steamship companies. Full information as to routes, traffic, rates, &c., will be provided in due course.

A general official catalogue will be published in English, French, German, and Spanish. A special catalogue will also be published for the British Section.

Exhibitions of live stock will be held and prizes will be offered in connexion with them. A special circular has been issued giving information about these.

A limited quantity of steam and water power will be supplied gratuitously. Further supplies will be provided at a fixed rate. Countershafts, pulleys, belts, &c., must be provided by the exhibitor.

The general reception of articles at the Exhibition Buildings will commence on November 1st, 1892, and no articles will be admitted after April 10th, 1893. Foundations for heavy machinery may be put in and special constructive work commenced as soon as the state of the ground and the buildings permits.

Special regulations will be hereafter issued for the organisation of the international juries.

The Royal Commission are informed that the contract labour laws of the United States will not prevent exhibitors from importing foreign labour, or from entering into binding contracts with their employés. Further information on this head will be supplied on application,

Every person who becomes an exhibitor in the British Section thereby agrees to be governed by the rules and regulations laid down by the Exhibition Executive, or by the Royal Commission through its executive officer.

The classification adopted for the purposes of exhibition is the following:—

Department A.—Agriculture, food and its accessories, forestry and forest products, machinery and appliances.

Department B.—Horticulture, viticulture, pomology, floriculture, &c.

Department C.—Live stock, domestic and wild animals.

Department D.—Fish, fisheries, fish products, and apparatus for fishing.

Department E.—Mines, mining, and metallurgy.

Department F.—Machinery.

Department G.—Transportation: railways, vessels, vehicles.

Department H.—Manufactures.

Department J.—Electricity and electrical appliances.

Department K.—Fine arts: painting, sculpture, architecture and decoration.

Department L.—Liberal arts: education, literature, engineering, public works, music and the drama.

Department M.—Ethnology, archæology, progress of labour and invention.

XI.—CYCLING EXHIBITION AT COPENHAGEN.

The following account of a show of bicycles and tricycles recently held at Copenhagen and of the present position of cycling in Denmark is given in a report to the Foreign Office, dated the 5th March, by Mr. A. P. Inglis, Her Majesty's Consul at that capital:—

Under the auspices of the Danish Cyclists' Club an exhibition of bicycles and tricycles was opened in the concert hall of the Schimmermann Palace here on the 1st March.

Of late years cycling has become a very popular amusement in Denmark, and there are now two cyclists' clubs in Copenhagen, the number of persons indulging in this form of sport throughout the country being about 16,000, with a tendency to increase.

The Danish Cyclists' Club has already done much to encourage this form of sport, and one of the effects of the present exhibition will no doubt be to further stimulate it. The club has recently issued a useful road-map of Zeeland, with table of distances, for the use of cyclists.

The demand for bicycles under these circumstances is likely still further to increase, and it is satisfactory to see that English makers command the market, most of the well-known firms being represented by agents here.

The marvellous progress effected in the manufacture of this class of machinery within a comparatively short period is well illustrated by one of the stands here, on which the rude bicycle of 1867 is shown alongside one of the admirably turned-out "Safeties" of 1892.

Probably no more striking instance could be adduced of perfected development, the latest pattern of quick-firing gun not being more removed from the rusty carronade of a bygone age than are these light, smart, and workmanlike bicycles from their cumbersome prototype of only 25 years ago.

The number of cycles shown is about 300, and with the exception of a few exhibited by a Dresden firm, and one or two Danish, are all by English makers.

The majority are of the "safety" pattern. The crypto-geared "ordinary" with multiplying arrangement in the hub of the forward wheel seems, however, to be attracting a good deal of attention. This form is shown by Crypto Cycle Co., of London, and the Centric Cycle Co., of Birmingham.

Among the most noticeable general displays should be mentioned that of the Humber Co., who show both bicycles and tricycles of a great variety of pattern, with all the latest improvements; that of Calcutt, Bros., and West, with their XI. cycles; of the Manchester Cycle Co., and of Bayliss, Thomas, and Co., with their "Excelsior." Without attempting to furnish a complete list, it may be said that the Empire Cycle Works, of Wolverhampton, Raleigh and Whitworth, Warman and Co., and Rudge, of Coventry, all show machines which for lightness, excellence of workmanship, and general appearance, need fear no competitors, and may well satisfy the most exacting cyclist.

Other stands show the various forms of pneumatic and cushion tyres in successive stages of manufacture, the exhibitors being Messrs. A. Bates and Co., and the Pneumatic Tyre Co., of Dublin, which has a very interesting display.

Facilities are afforded to all who desire to adopt the latest system of wheel, by the ingenious arrangement of Smith's laced pneumatic tyre, made to fit any rim from $\frac{1}{8}$ in. upwards.

Of cycle accessories, such as lamps and lamp-oil, saddles, enamel, &c., a great variety are displayed, but these like the clothing, do not require any special mention.

XII.—CONDITION OF THE PORTS OF SANTOS AND RIO DE JANEIRO.

The following extract from the *Rio News* of the 26th January, forwarded in a despatch under date of the 29th January, by Mr. H. Wyndham, Her Majesty's Minister at Rio de Janeiro, illustrates the deplorable condition of the ports of Santos and Rio de Janeiro :—

The epidemic of fever in Santos has at last reached so acute a stage that several lines of steamers have stopped receiving cargo for that port, and some of the most influential foreign houses of the city are closing their doors. In some cases there is really no one left to carry on business, the well being obliged to devote their attention to the sick. The situation is desperate to an extreme, and the only recourse, so far as we can see, is to be found in the complete closing of the port to foreign commerce. It was long ago almost a foregone conclusion that this would be the result, and now, when its realisation is at hand, the local authorities of Santos, and the State authorities of São Paulo, must admit the conclusion that they have only themselves to blame for the disaster. Months ago we called attention to the situation, and to the dangers which were threatening them. The enormous accumulation of merchandise in that port, the blocking of the streets and railway, the lack of facilities for unloading and storing merchandise, the apathy and indifference of officials and every one else connected with the service of discharging, storing, and transporting merchandise—all this could have but one end.

An extraordinary accumulation of vessels followed, and in the midst of all these a port improvements contractor went on dredging up the accumulated filth of years from the river bottom to deposit it along the banks. In the best and coolest of seasons this would have resulted in sickness in the shipping, but when we add to this the intense heat of a summer in Santos, it must be seen that yellow fever was inevitable. And still, up to this moment, we have yet to hear of a single order, either from the sanitary authorities or from those of the city or State against this terrible blunder. With a fever epidemic staring them in the face, the authorities of Santos lacked even the common sense to order a suspension of a work which was continually bringing up the poisonous deposits of the river bottom from which fever contagion was spread broadcast among the shipping. Such a people, to say the least, are totally unfit for the responsible positions which they hold. If strict justice could be meted out in this world they would be held responsible in no small measure for the terrible loss of life which is resulting from their incompetence and negligence.

The calamity, however, has arrived, and it only remains to limit the consequences within the narrowest bounds. To that end all foreign steamship companies should immediately suspend calling at Santos—for the impossibility of discharging cargoes quickly renders such calls most dangerous—and every foreign house which can do so, should close its doors. Let the Government then do what it will! If it cannot bring itself to the point of constructing temporary piers, enlarging and improving the Custom house, increasing facilities for transporting merchandise to the interior, and of thoroughly cleansing and draining the city, then let the port of Santos be abandoned. There is no use in wasting human life in such a place.

The port of Santos or some other port is a necessity for the State of São Paulo, but the people of that State must therefore see to it that it is made inhabitable.

What we have said in respect to the port of Santos is in great measure true also of Rio de Janeiro. The same apathy and incompetence are to be found here which have brought about so much trouble down there. The port and Custom house are crowded, the Central railway is continually blocked, and the city was never dirtier since the days when the streets were made the common receptacle for every species of filth. Add to this a much diminished supply of water—now happily augmented by welcome rains—and we have a situation full of danger to the health of the city. That these conditions have been producing their natural results during the recent hot weather may be seen in the rapidly increasing death rate from yellow fever.

We have now reached a death rate of over 30 a day, which may be considered an epidemic rate. This number, it should be noted, does not include the cases from the shipping, which are sent over to Jurujuba and do not enter into the mortality reports of the city. The shipping is beginning to suffer severely, and unless something is done at once Rio may soon find herself in a position little better than that of Santos. There is now no time for idle talk, nor for the execution of pretentious schemes. Providence has once more come to the relief of incapacity by sending a heavy rain to wash out Rio's filthy streets and rain-water sewers, but it will be very unwise to depend on a repetition of the favour. Provisions should be taken at once to keep the streets clean, to provide for a better distribution of water, and then what is equally important, to provide against the sale of unwholesome food and drink.

Food is dear and often bad, and this in itself is a source of illness during the hot season. Then, too, the city, if not the whole country, is actually flooded with poisonous artificial drinks. There is hardly a popular drink in the market, whether spirits, wine, or mineral water, that is not counterfeited, and there is hardly a hotel or restaurant that is not knowingly selling them.

In a further despatch to the Foreign Office, dated the 1st February, Mr. Wyndham forwards copy of a report received by

him from Mr. W. T. Lyall, Her Majesty's Consul at Santos, dated the 28th January, in which the latter says:—

"I have the honour to again draw your attention to the fearful state of existing mortality at this port, owing to the impossibility, from want of wharf accommodation and the insufficiency of the Custom house, of discharging vessels, which are kept here for months while their crews die of yellow fever.

"The town here is half deserted and the fever is everywhere, and is increasing.

"The only way to check mortality is to absolutely prohibit chartering of vessels to this port until (1st) proper wharf accommodation is furnished; (2nd) until the town is disinfected."

Mr. Wyndham, in forwarding the above report, says that he has instructed Her Majesty's Consuls at the other ports in Brazil to endeavour to prevent ships being chartered for Santos.

Writing under date of February 2nd, Mr. Wyndham encloses a memorandum drawn up by Mr. A. Petre and an extract from the *Diario Official* of the 31st January, respecting measures proposed by persons interested at São Paulo and the steps taken by the Government. Mr. Wyndham, in a later despatch of the 9th February, also forwards copy and translation of a note from the Brazilian Minister for Foreign Affairs, stating that measures have been already adopted for improving the service of the Customs Department at Santos, and that other measures are in contemplation for expediting the discharging of vessels at that port, and his Excellency states that the English railway company between São Paulo and Santos might, by reorganizing its traffic arrangements and increasing its staff, greatly contribute towards this.

XIII.—AGRICULTURAL PRODUCTION IN ZANZIBAR.

The following statement of the agricultural resources of Zanzibar is extracted from a recent report of Mr. G. H. Portal, Her Majesty's Agent and Consul-General there, for the year 1891:—

Turning now to the agricultural future of Zanzibar and Pemba, one is at once struck by the weakness of the whole financial position of a country which is almost entirely dependent upon one crop—one article of produce. Still more serious does this weakness appear when it is borne in mind that this one crop is not of any necessary of life, nor even of civilisation.

Cloves supply little more than a luxury; the demand for them is limited, and diminishing rather than increasing; the market is varying and capricious; their cultivation requires a liberal supply of labour; whole plantations are exposed to utter destruction by any cyclone; and the excessive cultivation of one crop on the same soil must expose it to the danger of attack by some new malady, just as coffee in Ceylon and elsewhere was attacked by disease, cotton in Egypt by the worm, the vine by the phylloxera, or the potato by the Colorado beetle.

In Zanzibar Island itself, small as it is, there are many thousands of acres of fertile soil lying fallow, overgrown by all kinds of tropical grasses, creepers, and bushes, but bearing nothing remunerative except, perhaps, a few cocoa-nuts. The reason for this waste of land, for this almost sinful neglect, is easily expressed by the two words, "Arab domination."

The Arab, the conquering race of Zanzibar, learnt years ago that there were two remunerative trades here: (1) slave and ivory hunting; (2) clove growing; but he cannot read the changing signs of the times. The slave-hunting profession is doomed; with the cessation of the slave supply, and the fall in the price of cloves, the clove plantations will soon cease to bring in more than a very small profit, and it may be prophesied that in the course of very few years a great quantity of land will pass from Arab into Indian and European hands.

While this process is taking place, it should be the duty of the protecting power to encourage fresh forms of cultivation suitable to the climate and the character of the country.

With a fertile soil, a tropical climate, and an annual rainfall of from 80 to 140 inches, there should be no difficulty in finding crops which would yield a profit. For instance, wherever the ground is not cleared for cloves, it is usually overrun by a luxuriant growth of aloes and common pine-apples.

To take the latter first, they grow in such profusion in a wild state, that there can be no doubt that they would grow luxuriantly with even a most casual cultivation. The leaf of the pine-apple contains a fibre of great strength and fineness, which has been used advantageously to mix with silk.

Next, the aloe, especially the kind known as the "San Severio," not only grows wild in every direction, but also contains a

fibre of no little value, which might yield a substantial profit both to the cultivator and to the owner of the fibre extracting machinery.

Cocoa-nuts, which grow in hundreds of thousands all over the island, are at present picked only for the sake of the "copra," *i.e.*, that part of the inner nut from which cocoa-nut oil is crushed. The valuable fibre of the outer husk has hitherto been thrown away by the improvident natives, who even buy their cocoa-nut rope and matting from Madagascar. Here, again, is an industry which has hitherto been neglected.

It is satisfactory to be able to report that an English firm has recently determined to make a move in the right direction, and is about to set up a fibre-extracting mill which will be able to deal with cocoa-nuts, aloes, or pine-apples, and will, it is to be hoped, give a stimulus to the whole agriculture of the island.

In order to encourage enterprise of this sort, the Sultan has been advised to allow all this machinery and plant to enter the country free of duty. This has been done.

Oranges grow here in great profusion; a few are consumed by natives and Europeans in the town, the rest are allowed to rot on the tree. From inquiries which have been made, it seems that a profitable trade in oranges might be opened with Bombay, especially as the seasons here are the reverse of those to the north of the equator, and the crops are commencing here as the Indian season ends.

Sago palms grow here with apparent health and luxuriance, but their cultivation on a large scale has never been attempted.

Cassava, or manioc, or, as it is called here, mahogo, grows in the greatest profusion, and constitutes the staple article of native food. It is from the root of this plant that tapioca is made, but it does not appear that this industry has ever been attempted here. The cultivation of mahogo is simple, and consists only in breaking off a stick of one foot or so in length, and placing it upright in the ground. In a few days the stick has put forth both roots and leaves.

Some Liberian coffee plants were imported here by Sir John Kirk, and appeared to be flourishing and bearing abundant fruit; but an experienced coffee-planter, who is now here, has examined the bushes, and reports that they are already touched with the same disease which devastated the plantations of Ceylon.

Where vanilla has been planted, especially where Sir John Kirk tried it, it has apparently grown well and freely; at Bagamoyo, on the opposite coast, the priests of the French mission cultivate vanilla somewhat extensively, and assert that it yields them a handsome profit. In Zanzibar Island it has not yet been given a fair trial.

Chillies grow plentifully all over the eastern and southern part of this island, and are an important article of export.—(*No.* 982, *Foreign Office Annual Series.*)

XIV.—TARIFF CHANGES AND CUSTOMS REGULATIONS.

Russia.

Proposed establishment of Rates of Drawback on Cotton.

The *Gazette de Moscou* mentions a project before the Ministry of Finance for refunding to cotton manufacturers the import duties paid on the raw materials used in the making-up of the articles exported.

It is hoped by this means to give strength to Russian manufactured exports, which, up to the present have been very few only amounting by the European frontiers to 2 per cent. of the total export (16,000,000 out of 610,000,000 roubles, and by the Asiatic frontiers, 5,000,000 out of 77,000,000). This, in the opinion of the *Gazette de Moscou*, is all the more regrettable since many of Russia's neighbours—the Danubian provinces, Persia, the Khanates of Central Asia, and China, cannot do without a large import of manufactured products.

Germany.

Manufacture of Candles from Imported Paraffin.

An inquiry having been addressed to the Board of Trade as to whether candles made from imported paraffin are permitted to be manufactured in Germany "under control," and if not whether any drawback is granted by the German Government upon the exportation of such paraffin candles, it has been ascertained that no regulations have as yet been issued by which candles may be made from imported paraffin, either in bond or under Customs supervision, and that no drawback of import duty on the paraffin is at present allowed on the exportation of the candles made therefrom.

Germany and the United States.

Reciprocity Agreement.

In a proclamation of the President of the United States, dated the 1st February last, it is stated that the following are the rates of duty applicable to articles imported into Germany from the

United States in accordance with an enactment of the German Government :—

Articles.	Rates of Duty now leviable.	
		Marks.
Bran, malt germs	Free.	
Flax, raw, dried, broken, or hetchelled, also refuse portions	Free.	
Wheat	100 kilos.	3·50
Rye	„	3·50
Oats	„	2·80
Buckwheat	„	2·00
Pulse	„	1·50
Other kinds of grain not specially mentioned	„	1·00
Barley	„	2·00
Rape seed, turnip seed, poppy, sesame, peanuts, and other oleaginous products not specially mentioned	„	2·00
Corn or maize	„	1·60
Malt (malted barley)	„	3·60
Anise, coriander, fennel, and caraway seed	„	3·00
Agricultural productions, not otherwise designated	Free.	
Horsehair, raw, hetchelled, boiled, dyed, also laid in the form of tresses and spun; bristles, raw, bed feathers	Free.	
Bed feathers, cleaned and prepared	Free.	
Hides and skins, raw (green, salted, limed, dried), and stripped of the hair, for the manufacture of leather	Free.	
Charcoal	Free.	
Bark of wood, and tanbark	Free.	
Lumber and timber:		
(*a.*) Raw or merely rough hewn with axe or saw, with or without bark, oaken barrel staves	100 kilos.	20·00
(*b.*) Marked in the direction of the longitudinal axis or prepared, or cut otherwise than by rough hewing; barrel staves not included under (*a.*), unpeeled osiers and hoops, hubs, felloes, and spokes	„	0·30
(*c.*) Sawed in the direction of the longitudinal axis, unplaned boards; and other articles sawn or hewn	„	0·80
Wood in cut veneering; unglued, unstained, parts of floors	„	5·00
Hops, also hopmeal (gross)	„	14·00
Butter, also artificial butter	„	17·00
Meat, slaughtered, fresh, with the exception of pork	„	15·00
Pork, slaughtered, fresh, and dressed meat, with the exception of bacon, fresh or prepared	„	17·00
Game of all kinds (not alive)	„	20·00
Cheese, except Strecchine, Gorgonzola, and Parmesan	„	20·00
Fruit, seeds, berries, leaves, flowers, mushrooms, vegetables, dried, baked, pulverised, only boiled down or salted; all these products so far as they are not included under other numbers of the tariff, juices of fruits, berries and turnips, preserved without sugar, to be eaten, dry nuts	„	4·00
Mill products of grain and pulse, to wit, ground or shelled grains, peeled barley groats, grits, flour, common cakes (bakers' products)	„	7·30
Residue, solid, from the manufacture of fat oils, also ground	Free.	
Goose grease and other greasy fats, such as oleomargarine sperfett (a mixture of stearic fats with oil), beef marrow	100 kilos.	10·00
Live animals and animal products not mentioned elsewhere, also beehives with live bees	Free.	
Horses	Each	20·00
(*a.*) Horses up to two years old	„	10·00
(*b.*) Colts following their dams	Free.	
Bulls and cows	Each	9·00
Oxen	„	25·50
Calves less than six weeks old	„	3·00

Articles.	Rates of Duty now leviable.	
		Marks.
Hogs - - - - -	Each	5·00
Pigs weighing less than 10 kilogrammes - - -	,,	1·00
Sheep - - - - -	,,	1·00
Lambs - - - - - -	,,	0·50
Wool, including animal hair, not mentioned elsewhere, as well as stuffs made thereof; (*a*) wool, raw, dyed, ground, also hair, raw, hetchelled, boiled, dyed, also curled - - -	Free.	

GERMANY.—THE CAMEROONS.

Customs Duty on Textile Fabrics.

Major C. M. MacDonald, Her Majesty's Commissioner and Consul-General for the West Coast of Africa, in a despatch to the Foreign Office, dated the 2nd January, says that he has received a communication from the Acting Governor of the Cameroons Colony, stating that from the 1st April 1892 a tax of 0·20 marks per kilogramme will be charged on all textile fabrics employed in making wearing apparel imported into that colony.

DENMARK.

Tariff Changes.

Note.—Kilog. = 2·204 lbs. avoirdupois. Franc = 9·6*d.*

According to the *Bulletin du Musée Commercial* the following changes have been introduced into the general customs tariff of Denmark :—

Category 227.—Sugar candied, and sugar in whole loaves or in lumps, cakes, &c., without regard to colour; also white sugar in powder, conforming more or less to the Amsterdam standard, No. 18, 16·8 centimes per kilogramme.

Category 228.—Other sugar in powder conforming more or less to the Amsterdam standard, No. 9, 8·4 centimes per kilog.

Category 229.—Sugar of a colour other than No. 9, lump or liquid, including the cane-juice from which the sugar has not been separated (Melado); also syrup of white sugar, 5·6 centimes per kilog.

Category 230.—Molasses, common unrefined syrup and a product know as beet lees, 2·8 centimes per kilog.

Category 25.—Chocolate in cake, blocks, &c., 29·2 centimes per kilog.

Category 185.—Petroleum, 5·6 centimes per kilog.

France.

The Importation of American Pork.

Writing with regard to the new regulations affecting the introduction of American pork into France, the United States Consul at Marseilles in a recent report, says:—

"The new law on the subject of the importation into France of pork, ham, and lard of 3rd December 1891, became operative at Marseilles on the 7th of December. It read as follows:—

"Table A., *tarif d'entrée*, of the general Customs tariff, established by the law of 7th May 1881, is modified as follows:—Pork, hams, and lard, 25 cents. per 100 kilogs.

"The modification, as regards the United States, consists in the removal of the prohibition against American pork in force since 1881.

"Returning to the law of 3rd December 1891, we read:—

Art. 1. Pork from the United States of America can be imported into France only through the ports of Dunkirk, Havre, Bordeaux, and Marseilles.

The decree of 5th December 1891, reads:—

Art. 1. American pork can be imported into France at places on the frontier and at seaports to be determined by decree.

Arts. 2, 3, 4, 5, and 6 are in brief as follows:—That the importer must produce a certificate from the United States meat inspector as to the condition of the pork; that the cases must be marked with the United States inspector's stamp; that, upon being landed, the pork is to be again inspected by sanitary inspectors appointed by the French Minister of Agriculture for that purpose; that all meat found to be unfit for food is to be destroyed; and that the expense attending the inspection is to be borne by the importer.

"The admission of the meat into France then depends upon its being found good for food by the French inspectors. The inspection in the United States and the certificate seem to be wholly unnecessary.

"What the cost of the French inspection will be is not yet known, but soon will be, as an experimental pork shipment to this port is now on the way.

"The cause that led to the prohibition of American pork was as is well known, certain epidemics of trichinosis considered particularly severe in the United States. The Société des Agriculteurs of France, in union with the ultra-protectionists, took advantage of the situation, and, on the ostensible ground of excluding meat unfit for food, but in reality for pure protection to the French farmer, forced the Government to declare the prohibition.

"How the general commerce of the two countries was affected is seen from the fact that in 1880 the imports from the United States were 30,880,000*l.*, while in 1888 they were 10,760,000*l.*, and in 1889, 12,800,000*l*

"The exports from France to the United States in 1880 were 19,640,000*l.*; in 1888, 15,280,000*l.*; and in 1889, 16,200,000*l.*"

Regulations affecting Coasting Trade with Algeria.

Sir J. A. Crowe, Her Majesty's Commercial Attaché at Paris, in a report to Mr. Egerton, Her Majesty's Chargé d'Affaires at that capital, calls attention to a passage in a circular addressed on the 22nd January last by M. Pallain to the French Custom houses on the subject of the coasting trade between French and Algerine ports. Sir J. A. Crowe in his report says:—

"The law of the 2nd April 1889 reserved the navigation between France and Algiers to the French flag. But the departments of the Ministry of Commerce and Foreign Affairs have come to the conclusion that the fact that the convention of navigation of the 28th of February 1882, between Great Britain and France, is still in force, precludes the full enforcement of the law of 1889, and its effects are, on that account, suspended so far as England, Russia, Austria-Hungary, Germany, Denmark, and I may add Sweden and Norway are concerned.

"British ships, therefore, may for the present continue to navigate between French ports and Algeria without molestation."

Austria-Hungary.

Customs Treatment of Ozokerite Waste.

Note.—Gulden = 1*s.* 8*d.* Kilog. = 2·204 lbs. avoirdupois.

The *Deutsches Handels Archiv* for January says, that according to a recent order of the Minister of Finance and Trade, ozokerite waste produced from the refining of ozokerite is classified as asphalt bitumen under Category 116 of the tariff, and pays duty at the rate of 1 gulden 50 kreutzer per 100 kilogrammes.

Abrogration of the Prohibition of the Importation of Swine and Swine Products from the United States.

According to the *Deutsches Handels Archiv* for the month of January, an order has been issued by the Ministries of the Interior, Trade, Finance, and Agriculture, providing that the importation of swine, pork-meat of all kinds, bacon, and sausages from the United States is allowed for the future on the condition that these goods are accompanied by a proper declaration in accordance with American law that they are perfectly wholesome and sound.

Portugal.

The Importation of Wheat.

Sir G. G. Petre, Her Majesty's Minister at Lisbon, in a despatch to the Foreign Office dated the 4th March, says that the *Official Journal* of that date contains a royal decree granting permission for the importation of 60,000,000 kilogrammes of wheat on payment of a duty of 1·5 reis per kilo. under special regulations.

GREECE.

Proposed Tariff Changes.

Sir E. Monson, Her Majesty's Minister at Athens, in a despatch to the Foreign Office, dated the 15th February, transmits an analysis of a financial statement made to the Greek Chamber of Deputies on the 13th by the Prime Minister. According to this statement the following changes in Customs duties are proposed:—

"Fifteen per cent. to be added to the import duties now collected, excepting wheat (for which the Prime Minister proposes a separate Bill); sugar, which is already sufficiently burdened by the present duty; the articles which are under a conventional tariff; and the cotton tissues, drills, &c., which are in use by the people.

"One lepta per oke should be added to the already existing duty on wheat."

TURKEY.

The Export of Maize at Trebizond.

The *Levant Herald* for the 25th January says, that with a view of counteracting the effects of the Russian prohibition to export maize, which is imported from Russia in some localities of the province of Trebizond, the export of maize from this province has been prohibited, it being expected that the local produce will thus suffice to meet all the requirements of the said localities. Facilities will, however, be granted in the case of merchants who had made contracts for exportation previous to the publication of the measure.

TURKEY.—CRETE.

Imposition of Additional Tax on Imports.

Merchandise, not in packages, but in bulk, is subject to a tax of 1 per cent. *ad valorem*, the proceeds of which will be applied to public works and educational purposes.

UNITED STATES.

The Marking of Imported Merchandise.

The following is a copy of a circular issued on February 11th by the Treasury Department at Washington to collectors and other officers of the Customs with respect to the marking of imported merchandise under the provisions of section 6, Act of October 1st, 1890:—

Section 6 of the Act of October 1st, 1890, requires as a condition to the entry of imported merchandise "that all articles of foreign "manufacture, such as are usually or ordinarily marked, stamped "branded, or labelled, and all packages containing such or other

" imported articles, shall, respectively, be plainly marked, stamped, " branded, or labelled in legible English words, so as to indicate " the country of their origin, and unless so marked, stamped, " branded, or labelled, they shall not be admitted to entry."

In view of the repeated attempts at evasion of the plain provisions of said section of law, the Department has had the matter of the proper marking of various articles, especially cutlery, under consideration.

It is ascertained that cutlery and other similar articles when imported into the United States are usually and ordinarily stamped in one of three ways, viz. :—

First. With trade names or marks, which indicate nothing as to any country of origin.

Second. With the name of a domestic dealer and the city in which he carries on business, no other indication as to a country of origin appearing upon the articles; and

Third. With the name of a foreign dealer and a foreign city other than the one of origin.

Such articles, in addition to the marks above specified, are required to be stamped so as to plainly indicate the country of origin, and the Department is of the opinion—

First. That in cases where the usual or ordinary stamping indicates nothing as to the country of origin the name of such country should be stamped notwithstanding the existence of ordinary trade names or marks.

Second. That in cases where the collector is satisfied that the usual stamping contains the names of domestic dealers and of the city where their business is carried on as an advertisement only, and not with the intention of deceiving the consumer into believing that the United States is the country of origin, the articles should be stamped as "made in" or "manufactured in" the country of origin.

Third. That in cases where a stamp upon the imported article is intended to indicate the United States as the country of its production the words "made in" or "manufactured in" should be prefixed to the stamp showing the actual country of origin; and

Fourth. That in cases where the usual and ordinary stamping plainly indicates a foreign country other than the one of origin, then the words "made in" or "manufactured in" should be added to the name of the country of origin.

You will therefore be governed accordingly, applying these instructions to all shipments from abroad made on and after the 1st proximo.

The law also requires that the articles shall be plainly marked in legible English words, so as to indicate the country of origin. The name of such country must therefore appear as conspicuously set forth as any other marks or stamps upon the imported articles.

A strict compliance with this requirement should be insisted upon, as in some cases brought to the notice of the Department

the name of the country of origin is stamped in such a manner as to be illegible, or on such parts of articles as to require careful examination for identification.

It should also be ascertained that the marking or stamping is of a permanent instead of an evanescent character.

The Act of October 1st, 1890, has now been in force for nearly a year and a half, and it must be assumed by the Department that importers, agents, consignees, &c., in the United States, and shippers, consignors, &c., in all foreign countries have become advised, by this time, of its requirements.

Inasmuch as applications continue to be made to this Department for permission to mark, stamp, or brand, in this country, goods not marked, stamped, or branded, as required by the section referred to, and as it is represented that importations are deliberately made of unmarked goods, in reliance on the leniency of this Department in allowing the marking to be done after importation, it is hereby directed that no merchandise shipped from abroad on and after the 1st of March 1892 will be admitted to entry upon importation unless it conforms to the requirements of section 6 of the Act of October 1st, 1890.

In all cases of refusal to permit entry under this order collectors and other chief officers of the Customs will make prompt report thereof to the Department for such instructions as the circumstances of each case may warrant.

Certificates of Depreciation of Currency on Invoices of Goods subject to Specific Rates of Duty.

In a circular, dated the 13th February, issued from the Treasury Department at Washington to collectors and other officers of the United States Customs, it is provided as follows:—

The Secretary of State, in a circular dated the 2nd February, instructed the consular officers of the United States to waive the requirement of a currency certificate to invoices in all cases where the value of the currency does not affect the dutiable value of the merchandise, and to leave the obtaining of such certificate to the option of the shippers.

You are therefore directed to conform the practice at your port in the matter of the requirement of currency certificate to that authorised by the Secretary of State.

Importers, however, who fail to produce such certificates must assume the consequences which would result from such a report by the appraiser, in regard to their merchandise, as would involve the classification thereof at an *ad valorem* rate or a rate dependent on its value.

Customs Decisions.

The following decisions respecting the construction to be given to Acts of Congress relating to the classification of articles in the Customs tariff and the application of the Customs laws of the

United States, have recently been given by the Customs authorities in that country :—

Physicians' and dentists' mirrors, about 4 inches in diameter, designed to reflect light into the mouth or down in the throat, and with a small hole in the centre of the disc, intended for the observer to look through, are dutiable at 60 per cent. as manufactures of glass.

Paper made to imitate stained window glass is dutiable at 25 per cent. as paper not specially provided for.

Cauliflowers, onions, gherkins, and other vegetables in brine or salt, are dutiable at 45 per cent. under paragraph 287 N. T.

White tissue paper with coloured stripes and plaids printed on one side of the paper is dutiable at 8 cents per pound and 15 per cent. *ad valorem* under the provision of paragraph 419, for all tissue paper white or coloured in any form.

Sketches painted in water-colours on paper are dutiable at 15 per cent. under paragraph 465 N. T.

A thin white paper with a glazed surface and invoiced as "chromo paper" is dutiable at 35 per cent. under paragraph 420 N. T. as a surface-coated paper.

Canned apples are dutiable at 2 cents per pound under paragraph 298 N. T.

Sandalwood chips, are dutiable at 20 per cent., under paragraph 220 N. T. as wood manufactured.

Bath bricks are dutiable at 25 per cent. *ad valorem* under the provisions of paragraph 94 of the Tariff Act of October 1st, 1890.

Brazil.

Establishment of New Custom Houses.

In a despatch to the Foreign Office, dated the 25th January, Mr. H. Wyndham, Her Majesty's Minister at Rio de Janeiro, says that the *Diario Official* of the 15th January publishes a decree establishing Custom houses at the ports of Gargahri, Macahé, and Angra dos Reis, all in the State of Rio de Janeiro.

British India.

Amendment in Tariff Act.

According to an Act passed by the Government of India, and which received the assent of the Governor-General on the 16th January 1892, the following clause is substituted for clause (*a.*) in section 5 of the Indian Tariff Act, 1882 :—

"(*a.*) Foreign European settlements bordering on any part of the territories administered by the Governor Fort St. George in Council or by the Governor of Bombay in Council."

Victoria.

Additional Drawback Regulations.

The following additional drawback regulations have recently been adopted by the Government of Victoria :—

Exporters of earthenware and glassware must cause the goods upon which they intend to claim drawback to be stacked for measurement in the smallest possible compass consistent with safety, and as may be directed by the officer or officers superintending the operation, and the said goods shall be placed in the packages in which it is intended to export the same in the presence of such officer or officers.

Exporters of earthenware and glassware under drawback shall on rendering their debentures produce to the proper officer, prior to the passing of the claims, properly certified documents showing the freight measurements of the packages included in the entries.

The officer or officers superintending the packing of earthenware and glassware for drawback, in addition to the actual net measurement of goods shall also take the outside measurement of the package or packages into which the goods shall be placed, and record both measurements on the back of the entries. They shall also take an account of any other goods contained in such package or packages.

When the packing of any goods entered for drawback has been completed the packages containing the same shall be sealed by the officer or officers superintending the operation before leaving the warehouse or place where the goods shall have been packed, and a distinctive mark or label shall be placed by them upon each package, by which it may be identified when received for shipment.

Wherever in the Drawback Regulations dated the 29th September 1890, the words "export value" occur the said words shall be deleted, and the words "value for home use" substituted therefor.

The following rates of drawback on earthenware and glassware are substituted for those previously in force :—

Earthenware (*except* photographic, scientific, and telegraphic materials), *except* in original packages as imported, 1*s.* 4*d.* per cubic foot.

Glassware (except locket, brooch, watch glasses, and optical, surgical, scientific instruments, and photographic materials, and syphon bottles for aërated waters), viz., cut, engraved, etched, frosted, ground, sand-blast (except in original packages as imported), 3*s.* per cubic foot.

Glassware, other (*except* in original packages as imported), 1*s.* per cubic foot.

XV.—NEW SPANISH CUSTOMS TARIFF.*

STATEMENT showing the RATES of IMPORT DUTY to be levied in SPAIN under the New SPANISH TARIFF, compared with the RATES of DUTY hitherto leviable on IMPORTS into that Country.

Note.—Up to the 30th June next, when the Anglo-Spanish Convention of 1886 expires, the Conventional rates of the Spanish Tariff will still be levied on British produce, including those of the Franco-Spanish and German-Spanish Treaties which are enumerated in Parliamentary Paper, Commercial No. 15 (1886). (C.—4778).

No.	CLASSIFICATION OF ARTICLES.	Rates leviable by New Tariff of 1st February 1892.		CLASSIFICATION OF ARTICLES.	Rates leviable hitherto on Imports from United Kingdom.
		General Tariff.	Special Tariff.		
	CLASS I.	Per 100 kilogs. Pes. cts.	Per 100 kilogs Pes. cts.		Per 100 kilogs Pes. cts.
	STONES, EARTHY MATTERS, MINERALS, GLASS, EARTHENWARE, AND PRODUCTIONS OF POTTERY.				
	Group 1.—Stones and Earthen Productions employed in Building, Arts, and Manufacture.				
1	Marble, jasper, and alabaster, in the rough, or in dressed pieces, squared and prepared for taking the form - - - - - - -	2 00	1 75	- - - - -	0 37
2	Ditto, of all kinds, cut into flat blocks, slabs, or steps of any dimensions, polished or not - - - - - - - -	14 40	12 00	- - - - -	3 10
3	Ditto, in sculpture, bas-relief, flower jars and flower pots, and other articles for house decorations - - - - - -	40 00	30 00	- - - - -	7 35
4	Ditto, worked up or chiselled into any kind of object, polished or not -	20 00	15 00	- - - - -	7 35
5	Other stones and earthenware substances employed in building, arts, and manufactures; cement, lime, and gypsum - - - -	0 40	0 30	- - - - -	0 06
	Group 2.—Coals.	Per 1,000 kilogs.	Per 1,000 kilogs.		Per 1,000 kilogs.
6	Coal and coke (Note 1) - - - - - - -	3 00	2 50	- - - - -	1 25

	Group 3.—Bituminous Shale, Bitumen, and Bituminous Products.	Per 100 kilogs.	Per 100 kilogs.		Per 100 kilogs.
7	Pitch, tar, creosote unrefined, mineral oils, and asphalts, bitumen, and shale (Note 2)	0 60	0 40	-	0 41
8	Naphtha, vaseline, crude petroleum, natural petroleum oil, and other crude oils of shale (Notes 2 and 3)	25 00	25 00	-	21 00
9	Benzine, gasoline, petroleum, and other refined oils (Notes 2 and 3)	40 00	40 00	-	32 00
	Group 4.—Minerals.	Per 1,000 kilogs.	Per 1,000 kilogs.		Per 1,000 kilogs.
10	Mineral ores	0 30	0 25	-	0 25
	Group 5.—Glass.	Per 100 kilogs.	Per 100 kilogs.		Per 100 kilogs.
11	Common or ordinary hollow glassware (Note 4)	13 00	10 00	-	6 50
12	Crystal, or its imitations in glass (Note 5)	65 00	50 00	Flint glass and glassware in imitation of it even if gilt or silvered inside	34 65
13	Flat glass and crystal	24 00	20 00		
14	Glass and crystal quicksilver	104 00	80 00	Window and plate glass	16 04
15	Glass and crystal in figures, jars, flower vases, and other analogous ornaments for rooms and toilette tables, liqueur cases, dessert plates, and spectacle and watch glasses	Per kilog. 1 45	Per kilog. 1 10	Glass and flint glass silvered for mirrors, and glasses for spectacles and watche	Per kilog. 0 69
	Group 6.—Pottery, Earthenware, and Porcelain.	Per 100 kilogs.	Per 100 kilogs.		Per 100 kilogs.
16	Ornamental clay flagstones, brick and tile for buildings, ovens, &c. (Note 6)	4 55	3 50	-	0 06
17	Clay flagstones, floor tiles, ornamental tiles, japanned tiles, and piping (Note 7)	6 50	5 00	-	1 50
18	Fine earthenware, fine clay and figures of gypsum (Note 8)	48 75	37 50	-	26 58
19	Porcelain	68 25	52 50	-	37 50
20	Clay, earthenware, porcelain, in figures, jars, bas-relief, flower work, and ornaments for dressing tables, rooms, and other like uses; liqueur cases, and dessert plates	Per kilog. 1 55	Per kilog. 1 20	-	Per kilog. 0 26

* A translation of the notes which are appended to the Spanish Tariff will appear with the concluding portion of the tariff in the April issue of the Journal.

No.	Classification of Articles.	Rates leviable by New Tariff of 1st February 1892.		Classification of Articles.	Rates leviable hitherto on Imports from United Kingdom.
		General Tariff.	Special Tariff.		
	CLASS II.	Per hectog. Pes. cts.	Per hectog. Pes. cts.		Per hectog. Pes. cts.
	Metals and all Manufactures into which Metal enters as a principal Element.				
	Group 1.—*Gold, Silver, and Platinum.*				
21	Gold in jewellery, with or without pearls and precious stones; and the precious stones themselves, pearls and imitation pearls, loose or unset (Notes 9 and 10)	30 0	25 00	- - - - -	25 00
22	Silver in jewellery, with or without pearls, and precious stones (Notes 9 and 10)	4 20	3 50	- - - - -	3 50
23	Gold, silver, and platinum worked into other objects (Notes 10 and 11)	3 20	2 60	- - - - -	2 60
	Group 2.—*Iron Castings* (*Note* 12).				
		Per 100 kilogs.	Per 100 kilogs.		Per 100 kilogs.
24	Cast iron, in pigs, and old iron	2 40	2 00	- - - - -	2 00
25	Ditto, in columns, without any work of adjusting or polishing, and in tubes of 10 millimetres thick or upwards	6 00	5 00	Iron, cast, in ordinary manufactures -	6 10
				Iron, cast, in tubes of all kinds - -	3 50
26	Ditto, in tubes of under 10 millimetres thickness	9 60	8 00	Ditto - - - - -	3 50
27	Ditto, in lubricating boxes for railway trucks and carriages	9 90	8 25	Iron, cast, in ordinary manufactures -	6 10
28	Ditto, in common wares of iron	10 20	8 50		
29	Ditto, in fine wares of iron, or in those polished and japanned, or with ornaments of other metals	21 00	17 50	- - - - -	11 80

	Group 3.—Wrought Iron, forged or in sheets, and Steel.				
30	Scraps of wrought iron or steel	1 65	1 35	Old wrought iron and steel	2 50
31	Steel in ingots and iron in rough bars ("tochos") (Note 13)	6 00	5 00	Steel in ingots Iron in rough bars (*tochos*)	8 65 3 50
32	Fine crucible steel in bars, hoops, and sheets (Note 14)	30 00	25 00	(Not specially tariffed.)	
33	Wrought iron and steel rails	7 20	6 00		4 55
34	Ditto, and ordinary steel bars, of all sorts	11 40	9 50		8 65
35	Ditto, in tyres and wheels, exceeding 100 kilogrammes, for locomotives and railway carriages, fish plates, chairs and sleepers, straight axles and springs	12 00	10 00	Axles, tires, plates, and springs for carriages Railway chairs and fish-plates Manufactures of wrought iron or steel not specially tariffed	8 65 8 65 19 84
36	Ditto, in wheels of 100 kilogrammes or under, for carriages and trucks	22 20	18 50	Manufactures of wrought iron or steel not specially tariffed	19 84
37	Ditto, in axles, cranked, or winches	19 20	16 00	Ditto, ditto Axles	19 84 8 65
38	Ditto, in sheets of 3 or more millimetres thickness	12 85	10 70	Sheets of 6 millimetres in thickness and above	6 70
39	Ditto, in sheets under 3 millimetres thickness, and hoops (Note 15)	15 00	13 00	Sheets up to 6 millimetres in thickness Hoops of wrought iron or steel	8 65 8 65
40	Ditto, in chilled polished plates, and corrugated or perforated, whether galvanised or not (Note 16)	19 20	16 00	(Not specially tariffed.)	
41	Ditto, and steel in pieces in the rough, without any work by the lathe, adjusting or polishing, of 25 kilogrammes weight each, or upwards	15 00	12 50	Wrought iron and steel, in large pieces, composed of bars or of bars and sheets, riveted, for the construction of buildings, bridges, &c	11 25
42	Ditto, in pieces under 25 kilogrammes each, and horse-shoes	22 80	19 00		
43	Ditto, in tubes, soldered and closed, and those galvanised, of all kinds	21 00	18 00	Tubes of wrought iron or steel	8 50
44	Ditto, in tubes covered with a plating of brass	24 00	20 00		19 84

No.	Classification of Articles.	Rates leviable by New Tariff of 1st February 1892.		Classification of Articles.	Rates leviable hitherto on Imports from United Kingdom.
		General Tariff.	Special Tariff.		
	CLASS II—*continued.*				
	METALS AND ALL MANUFACTURES IN WHICH METAL ENTERS AS A PRINCIPAL ELEMENT—*continued.*	Per 100 kilogs. Pes. cts.	Per 100 kilogs. Pes. cts.		Per 100 kilogs. Pes. cts.
	Group 3.—*Wrought Iron, &c.*—continued.				
45	Ditto, in tubes cast, without any soldering, and other kinds not specified	17 70	14 75	Tubes of wrought iron or steel - -	8 50
46	Ditto, in barrels, undressed, for portable firearms - - - -	Per kilog. 1 20	Per kilog. 1 00	Barrels for firearms - - - -	Per kilog. 4 60
47	Ditto, in screws, nuts, washers, and rivets - - - -	Per 100 kilogs. 25 20	Per 100 kilogs. 21 00	Nails and screws, including those with brass heads - - - - -	Per 100 kilogs. 14 85
48	Ditto, in nails, screw-nails, hooks, and tacks - - - - -	30 00	25 00	Rivets - - - - -	6 70
49	Ditto, in files, and other finer tools, for artists and mechanics - -	66 00	55 00	Manufactures of wrought iron or steel of all kinds not specially tariffed -	19 84
50	Iron and steel wire of 43 cents. of a millimetre up to a centimetre in diameter; or from No. 30 to P.P. Paris caliper - - - - -	14 40	12 00	Iron or steel wire - - -	6 55
51	Ditto, in wire, from 42 cents. of a millimetre to 3 cents. in diameter; or from 8 to 50 of the French Carcasse caliper - - - - -	19 20	16 00		
52	Ditto, in wire gauze, not further manufactured, up to 20 threads to the inch (Note 17) - - - - - - - -	30 00	25 00	Wire gauze not further worked - -	15 00
53	Ditto, in wire gauze, not further manufactured, of more than 20 threads to the inch (Note 17) - - - - - - - -	Per kilog. 1 20	Per kilog. 1 00		
54	Ditto, in wire, manufactured into ropes, barbed fence ropes, furniture springs, Paris nails, and other like manufactures - - - -	Per 100 kilogs. 22 50	Per 100 kilogs. 18 75	Nails - - - - -	14 85
55	Ditto, in anchors, chains for vessels, machines and holsters, axles, tires, springs for carriages, but not railway or tramway carriages, switches, signal discs and fixings - - - - - - - -	15 60	13 00	Axles, tires, plates and springs for carriages - - - -	8 5
				Manufactures of wrought iron or steel not specially tariffed - - -	19 84

56	Iron and steel in large pieces, composed of bars, or of bars and sheets secured together by means of rivets or screws, as also unriveted, bored and cut to measure for bridges, frames, or other constructions, water tanks and manufactures of a like nature for industrial purposes, and sash frames for coaches and railway carriages - - - -	20 40	17 00	Wrought iron or steel in large pieces composed of bars, or of bars and sheets riveted, for the construction of buildings, bridges, &c. - - - -	11 25
				Manufactures of wrought iron or steel of all kinds not specially tariffed - -	19 84
57	Ditto, in objects of ordinary manufacture in which sheets predominate, although they may be coated with lead, tin, or zinc, or be painted or varnished - - - - - - - - -	38 40	32 00		
58	Ditto, in the same objects of fine manufacture, or polished, japanned, or with ornaments of other metals, and bedsteads of tubes covered with coating of brass - - - - -	43 20	36 00		
59	Ditto, in other objects of common manufacture, in which sheets do not predominate, although coated with lead, tin, or zinc, and be painted or varnished - - - - - - -	30 00	25 00	Manufactures of wrought iron or steel of all kinds not specially tariffed, including those enamelled or having parts of other metals - - -	19 84
60	Ditto, in the same sort of objects of fine manufacture, or polished, japanned, or with ornaments of other metals - - -	36 00	30 00		
61	Tin plates not further manufactured - - - -	24 00	20 00	- - - -	13 85
62	Ditto, manufactured - - - - - -	60 00	50 00	- - - - -	50 95
63	Needles, pins, steel pens, pieces for watches, hooks and eyes, and other similar objects - - - - -	Per kilog. 3 90	Per kilog. 3 00	- - - - -	Per kilog. 3 00
64	Table and carving knives, razors, and penknives - - -	1 95	1 50	- - - - -	1 00
65	Tailors' scissors - - - - - -	3 00	2 25	- - - - -	2 25
66	Side arms, and parts thereof - - - - - -	2 60	2 00	- - - -	2 05
67	Small arms, or pistols and revolvers, barrels, and other parts thereof (Note 18) - - - - - -	6 50	5 00		
68	Portable muzzle-loading percussion firearms and detached parts thereof (Note 15) - - - - - - -	3 90	3 00	Firearms, barrels, and other parts of firearms - - - -	4 60
69	Portable breach-loading firearms, and detached parts thereof (Note 18) -	26 00	20 00		

No.	Classification of Articles.	Rates leviable by New Tariff of 1st February 1892.		Classification of Articles.	Rates leviable hitherto on Imports from United Kingdom.
		General Tariff.	Special Tariff.		
	CLASS II.—*continued.*	Per 100 kilogs. Pes. cts.	Per 100 kilogs. Pes. cts.		Per 100 kilogs. Pes. cts.
	METALS AND ALL MANUFACTURES IN WHICH METAL ENTERS AS A PRINCIPAL ELEMENT—*continued.*				
	Group 4.—Copper and its Alloys.				
70	Copper { shell or cement	0 60	0 50	Not separately mentioned	—
71	Copper { of first fusion, and old copper	15 00	12 50		11 75
72	Copper { and brass, in bars and ingots and old brass	27 00	22 50		18 60
73	Bronze, unmanufactured	12 00	10 00		9 30
74	Copper and brass { in sheets and nails	42 00	35 00		33 15
75	Copper and brass { in tubes and large pieces, partially manufactured, such as outsides of coal pans and bottoms of boilers	69 70	58 00		46 20
76	Copper, brass, or bronze wire	48 00	40 00		20 60
77	Copper and bronze gauze, not further manufactured, up to 100 threads to the inch (Note 19)	90 00	75 00		41 25
78	Ditto, of over 100 threads to the inch (Note 19)	Per kilog. 2 40	Per kilog. 2 00		Per kilog. 0 41
79	Wares of copper, bronze, or brass, and all alloys of common metals in which copper enters, polished or not (Note 20)	1 65	1 25		0 87
80	The same, gilt, silvered, or nickeled (Note 20)	3 75	2 50		2 17

	Group 5.—The other Metals.				
81	Tin, in ingots	15 00	12 50	-	10 55
82	Zinc — in bars, lumps, or cakes	6 00	5 00	-	5 00
83	Zinc — in sheets, nails, and wire	00	15 00	-	13 65
84	Zinc — in manufactured articles, varnished or not (Note 21)	33 8	26 00	-	23 75*
85	All the other metals and alloys not enumerated in sheets, lumps, nails, tubes, &c.	2 00	1 60	-	1 60
86	Ditto, manufactured, varnished or not (Note 21)	48 75	37 50	-	16 60
87	The same metals and zinc, in wares gilt, silvered, or nickeled (Note 21)	58 50	45 00	-	45 00
	CLASS III.				
	SUBSTANCES EMPLOYED IN PHARMACY, PERFUMERY, AND CHEMICAL INDUSTRIES.				
	Group 1.—Simple Drugs.				
88	Cocoa-nut and palm oil, and other heavy oils (Note 22)	9 60	8 00	-	1 00
89	Other vegetable oils, excepting olive oil	27 60	23 00	-	23 00
90	Dyewoods and tannery bark	0 30	0 25	- / Madder root	0 10 / 18 35
91	Seeds of rape, of flax, and other oleaginous seeds, including copra or cocoa-nut	1 20	1 00	-	0 20
92	Colophony, pitch, and other resinous products of a similar kind	5 40	4 50	—	—
93	Garancine, or madder, and other vegetable products, not specified under other headings	12 00	10 00	Other vegetable products not elsewhere specified	10 00
94	Products of the animal kingdom, employed in medicine	3 60	3 00	-	3 00

* Whilst the Treaty with Franco-Spanish continues in force 23·69 pesetas per 100 kilogs.

No.	Classification of Articles.	Rates leviable by New Tariff of 1st February 1892.		Classification of Articles.	Rates leviable hitherto on Imports from United Kingdom.
		General Tariff.	Special Tariff.		
	CLASS III.—*cont.*				
	Substances employed in Pharmacy, Perfumery, and Chemical Substances—*cont.*	Per 100 kilogs. Pes. cts.	Per 100 kilogs. Pes. cts.		Per 100 kilogs. Pes. cts.
	Group 2.—Colours, Dyes, and Varnishes.				
95	Ochres and natural earths, for painting, including alumina	0 12	0 10		0 10
96	Indigo and cochineal (Note 23)	54 00	45 00		10 00
97	Dyeing extracts	9 40	7 80		3 00
98	Varnishes	28 80	24 00		18 00
99	Colours, in powder or in lump (Note 24)	9 00	7 50		4 80
100	Ditto, prepared, and inks	30 70	25 60		24 00
101	Ditto, derived from coal, and other artificial colours, and garancine and its mixtures with madder (Note 25)	Per kilog. 3 00	Per kilog. 2 50	Garancine	Per kilog. 0 75 0 65
	Group 3.—Chemical and Pharmaceutical Products.				
102	Muriatic or chlorhydric, nitric, and sulphuric acids	Per 100 kilogs. 2 60	Per 100 kilogs. 2 20	Muriatic and hydrochloric acids	Per 100 kilogs. 1 00
103	Natural mineral waters	Per hectol. 6 00	Per hectol. 5 00	Not separately mentioned.	—
104	Alkaloids and their salts	Per kilog. 36 00	Per kilog. 30 00		Per kilog. 27 50
105	Alum	Per 100 kilogs. 1 80	Per 100 kilogs. 1 50		Per 100 kilogs. 1 15
106	Sulphur	1 50	1 25		0 25
107	Alkaline carbonates, barillas, caustic alkalis, and ammoniacal salts, excepting sulphate	4 55	3 80	Barilla, natural and artificial Alkaline carbonates, caustic alkalis, &c.	0 80 1 00

108	Chloride of lime	3 10	2 00	- - - - -	1 30
109	Chloride of potassium, sulphate of soda, chlorine and carbonate and sulphate of magnesia	0 60	0 50	- - - -	0 50
110	Chloride of sodium (common salt)	3 90	3 25	- - - - -	0 54
111	Glues and albumina	14 40	12 00	- - - - -	12 00
112	Phosphorus	Per kilog. 0 85	Per kilog. 0 70	- - - - -	Per kilog. 0 35
113	Nitrate of potash (saltpetre)	Per 100 kilogs. 4 50	Per 100 kilogs. 3 75	- - - - -	Per 100 kilogs. 1 50
114	Nitrate of soda, and sulphate of ammoniac	1 20	1 00	- - - - -	0 25
115	Oxides of lead	6 00	5 00	- - - - -	2 00
116	Sulphate of copper	1 20	1 00	Not separately mentioned.	—
117	Sulphate and pyrolignite of iron	1 80	1 50	- - - - -	1 50
118	Pills, capsules, jujubes, and the like	Per kilog. 2 40	Per kilog. 2 00	- - - - -	Per kilog. 1 85
119	Pharmaceutical products not specified (Note 26)	1 20	1 00	- - - - -	0 90
120	Chemical products not specified	0 12	0 10	- - - - -	0 10
	Group 4.—Various.				
121	Starch	Per 100 kilogs. 18 00	Per 100 kilogs. 15 00	- - - - -	Per 100 kilogs. 9 15
122	Feculas, for industrial uses, and dextrine	2 40	2 00	- - - - -	1 00
123	Common soap	22 50	18 75	- - - - -	15 80
124	Mineral and vegetable wax in lumps	30 00	25 00	Not separately mentioned.	—
125	Paraffine, stearine, animal wax, and spermacetis in lumps	24 00	20 00	- - - - -	16 50
126	The same, and all manufactured waxes	60 00	50 00	- - - - -	33 90
127	Perfumery and essences	Per kilog. 2 60	Per kilog. 2 00	- - - - -	Per kilog. 1 73
128	Gunpowders, explosive compounds, and fuses for mines	0 60	0 50	- - - - -	0 47

No.	Classification of Articles.	Rates leviable by New Tariff of 1st February 1892.		Classification of Articles.	Rates leviable hitherto on Imports from United Kingdom.
		General Tariff.	Special Tariff.		
	CLASS IV.	Per 100 kilogs. Pes. cts.	Per 100 kilogs. Pes. cts.		Per 100 kilogs. Pes. cts.
	Cotton and its Manufactures.				
	Group 1.—*Raw Cotton.*				
129	Raw cotton, with or without seed (Note 27)	1 50	1 25		1 20
	Group 2.—*Cotton Yarns.*				
	Cotton, spun or twisted in one or two threads, unbleached, bleached, or dyed:—	Per kilog.	Per kilog.		Per kilog.
130	Up to No. 35 inclusive (Note 28)	1 50	1 25		0 76
131	From No. 36 upwards (Note 28)	2 10	1 75		1 00
132	Twisted with three or more threads, unbleached, bleached, or dyed	3 00	2 50		1 75
	Group 3.—*Cotton Tissues.*				
	Close woven tissues, plain unbleached, bleached, or dyed, in pieces, or handkerchiefs:—				
133	Up to 25 threads inclusive in the square of six millimetres (Note 29)	4 60	3 85		1 54
134	From 26 threads upwards (Note 29)	5 20	4 35		1 74
	Ditto, ditto, printed; also twills and tissues worked in the loom:—				
135	Up to 25 threads inclusive in the square of six millimetres (Note 29)	7 20	6 00		2 40
136	From 26 threads upwards (Note 29)	4 80	3 70		2 49
137	Transparent tissues, as muslins, batistes, lawns, organdies, and gauzes of all sorts	6 70	5 60		2 24
138	Quiltings and piqués	6 30	5 25		2 10

139	Velveteens, corduroys, and other double tissues for wearing apparel -	7 40	6 20	- - - - -	2 40
140	Tulles - - - - - - - - - -	12 50	10 45	- - - - -	4 18
141	Lace, other than crochet (Note 30) - - - - - -	16 20	13 50	- - - - -	5 40
142	Crochet laces, hand or machine made - - - - -	3 90	3 00	- - - - -	2 35
143	Knitted goods, in pieces, shirts, and drawers - - - - -	5 90	4 90	- - - - -	1 97
144	Ditto, in stockings, socks, gloves, and other articles - - -	7 60	6 35	- - - - -	2 54
	CLASS V.				
	HEMP, FLAX, ALOE, JUTE, AND OTHER VEGETABLE FIBRES AND THEIR MANUFACTURES.				
	Group 1.—*Raw.*				
145	Hemp, raw or hackled - - - - - - - - -	Per 100 kilogs. 12 00	Per 100 kilogs. 10 00	- - - - -	Per 100 kilogs. 2 00
146	Flax, raw or hackled - - - - - - - - -	3 25	2 70	- - - - -	2 00
147	Jute, manilla hemp, aloe, and other vegetable fibres - - -	1 20	1 00	- - - - -	0 20
	Group 2.—*Yarns.*				
148	Yarn of manilla hemp, aloe, jute, and other fibres not mentioned :— Up to No. 12 inclusive - - - - - -	12 60	10 50	} Yarn of jute, manilla hemp, aloe, and other vegetable fibres - - - -	7 75
149	Jute yarns, No. 13 and above - - - - - -	58 50	45 00		
149a	Yarn of hemp and flax or ramie :— Up to No. 20 inclusive - - - - - -	58 50	45 00	} Yarns of hemp and flax - - -	27 20
150	From No. 21 upwards - - - - - -	37 75	27 50		
151	Threads, twisted, of two or more strands - - - - -	Per kilog. 1 55	Per kilog. 1 20	- - - - -	Per kilog. 1 118
152	Rope and cordage (Note 32) - - - - - -	Per 100 kilogs. 24 95	Per 100 kilogs. 20 80	- - - - -	Per 100 kilogs. 18 90

No.	Classification of Articles.	Rates leviable by New Tariff of 1st February 1892.		Classification of Articles.	Rates leviable hitherto on Imports from United Kingdom.
		General Tariff.	Special Tariff.		
	CLASS V.—*continued.*				
	HEMP, FLAX, ALOE, JUTE, AND OTHER VEGETABLE FIBRES AND THEIR MANUFACTURES—*continued.*	Per kilog. Pes. cts.	Per kilog. Pes. cts.		Per kilog. Pes. cts.
	Group 3.—*Tissues* (Note 33).				
153	Plain tissues of linen or hemp with or without mixture of cotton:— Having up to 10 warp threads inclusive in the square of six millimetres	2 55	2 15		0 87
154	From 11 to 24 warp threads inclusive	6 40	5 35		2 15
155	Of 25 warp threads and above	11 50	9 60		3 85
156	Tissues of linen or hemp, twilled or figured	5 45	4 55		1 83
157	Lace	37 50	31 25		12 50
158	Knitted tissues	13 75	11 45		4 58
159	Plain tissues of jute, manilla hemp, aloe, or other vegetable fibres, with or without admixture of cotton	0 70	0 60		0 25
160	Twilled or figured tissues of the same materials, with or without admixture of cotton	2 70	2 25		0 90
161	Carpets of the same materials with or without mixture of cotton	2 20	2 00	——	—
	CLASS VI.				
	WOOLS, BRISTLES, HAIR, AND MANUFACTURES THEREOF.				
	Group 1.—*Raw.*				
162	Bristles and hair, including hair of the camel, vicuna, and of the angora and cashmere goat	2 40	2 00		1 00

163	Wool, unwashed (Note 34)	20 00	17 00		7 60
164	Wool, washed	54 00	45 00		15 20
165	Wool, combed and prepared for yarn, raw carded wools, and waste wool from carding, resulting from the working up of rags, raw or dyed (Note 35)	57 60	48 00	Wool combed or carded, and waste from carding	33 00
166	Wool, combed or carded, dyed	66 00	55 00		
	Group 2.—Yarns.	Per kilog.	Per kilog.		Per kilog.
167	Woollen and worsted yarns, twisted or not, raw or in the grease (Note 36)	3 00	2 50		1 00
168	Ditto, ditto, washed or bleached	3 10	2 60		1 65
169	Ditto, ditto, dyed	5 85	4 5		1 95
	Group 3.—Tissues.				
170	Carpets of wool, pure or mixed with other materials	2 10	1 75		1 00
171	Felts, ditto	1 80	1 50		0 60
172	Blanketings, ditto (Note 37)	5 35	4 45		1 78
173	Cloths and all other similar tissues of pure wool, hair, or waste wool	12 90	10 75	Cloths and all other similar tissues of pure wool, waste wool, hair, or a mixture of these materials	4 30
174	Cloths and similar tissues having either warp or woof, wholly of cotton or other vegetable fibre	7 80	6 50	Cloths and similar tissues when the warp is wholly of cotton or other vegetable fibre; astrakans and plushes of the same materials	2 60
175	Knitted goods, whether mixed or not with cotton or other vegetable fibres	10 40	8 65		3 47
176	Other tissues of pure wool, hair or waste wool	10 50	8 75	All other tissues of pure wool, waste wool, hair, or a mixture of these materials	3 50
177	Similar tissues when either the warp or woof is wholly of cotton or other vegetable fibre	6 45	5 40	Similar tissues when the warp is wholly of cotton or other vegetable fibre	2 17

No.	Classification of Articles.	Rates leviable by New Tariff of 1st February 1892.		Classification of Articles.	Rates leviable hitherto on Imports from United Kingdom.
		General Tariff.	Special Tariff.		
	CLASS VI.—*cont.*	Per 100 kilogs. Pes. cts.	Per 100 kilogs. Pes. cts.		Per 100 kilogs. Pes. cts.
	Wools, Bristles, Hair, and Manufactures thereof—*cont.*				
	Group 3.—*Tissues*—cont.				
178	Astrakans, plushes, and velvets of wool or hair, also containing mixture of cotton or other vegetable fibre	5 20	4 00	Cloths and similar tissues when the warp is wholly of cotton or other vegetable fibre; astrakans and plushes of the same materials	*2 60
179	Tissues of horse or other hair, with or without mixture of cotton or other vegetable fibre	6 00	5 00	-	2 00
	CLASS VII.				
	Silk and Manufactures thereof.				
	Group 1 (Note 38).				
180	Cocoons, waste from cocoons, and silkworms' eggs	0 10	0 10	-	Not stated.
	Group 2.—*Raw.*				
181	Silk, raw and spun, but not twisted	0 30	0 25	-	0 25
182	Ditto, twisted	5 20	4 00	Silk, raw and spun, twisted	3 80
183	Ditto, ditto, dyed	6 50	5 0		
184	Waste silk, combed or carded	0 20	0 15	-	0 10
185	Ditto, spun, but not twisted	0 30	0 25	-	0 10
186	Ditto, twisted, of two or more threads	2 60	2 00	Waste silk twisted	1 85
187	Ditto, ditto, dyed	3 90	3 00		

	Group 3.—Tissues.				
188	Tissues, plain or twilled	30 00	25 00		10 00
189	Velvets and plushes	36 00	30 00		12 00
190	Tissues of waste or floss silk, of raw silk, and of waste silk mixed with silk	15 00	12 50		5 00
191	Tulle lace, edgings of silk or waste silk	29 25	22 50		7 00
192	Knitted wares of silk or waste silk	30 00	25 00		10 00
193	Velvets and plushes of silk or waste silk, with either the warp or woof wholly of cotton or other vegetable fibre	24 00	20 00		8 00
194	Tissues of silk or waste silk, with either the warp or woof wholly of wool or hair	15 00	12 50		5 00
195	Other tissues of silk or waste silk, with either the warp or woof wholly of cotton or other vegetable fibre	12 00	10 00		4 00
	CLASS VIII.				
	PAPER AND ITS APPLICATIONS.				
	Group 1.	Per 100 kilogs.	Per 100 kilogs.		Per 100 kilogs.
196	Pulp or paste for paper-making (Note 39)	1 50	1 00	Not separately mentioned.	—
	Group 2.—Paper for printing or writing.				
197	Paper (endless), white or coloured, unsized, whose weight does not exceed 35 grammes to the square metre	45 50	35 00	Paper in the roll "Papel continuo," unsized or half sized, for printing	10 50*
198	Ditto, ditto, whose weight is comprised between 36 and 50 grammes to the square metre	15 00	12 50		
199	Ditto, ditto, whose weight to the square metre is 51 grammes and upwards	35 75	27 50	Paper in the roll for writing, lithographing, or engraving	27 50
200	Ditto, ditto, white or coloured, of any weight; cut, hand-made, and pencil or ink ruled, and envelopes	63 35	48 75		48 75

* Duty applied during the duration of the Commercial Treaty between Spain and Belgium 10 pesetas.

No.	Classification of Articles.	Rates leviable by New Tariff of 1st February 1892.		Classification of Articles.	Rates leviable hitherto on Imports from United Kingdom.
		General Tariff.	Special Tariff.		
	CLASS VIII—*cont.*	Per 100 kilogs. Pes. cts.	Per 100 kilogs. Pes. cts.		Per 100 kilogs. Pes. cts.
	PAPER AND ITS APPLICATIONS—*cont.*				
	Group 3.—Paper, printed, engraved, or photographed.				
201	Books, bound or unbound, and other printed papers in Spanish (Notes 40 and 41) - - - - - - - - - -	79 80	61 40	- - - - -	33 50
202	Ditto, ditto, in foreign languages (Note 40) - - - -	13 00	10 00	- - - - -	10 00
203	Engravings, maps, and drawings - - - - - - -	Per kilog. 1 60	Per kilog. 1 25	- - - - -	Per kilog. 1 25
204	Stamped paper, invoice paper, in blank, labels, cards, and similar objects	Per 100 kilogs. 78 00	Per 100 kilogs. 60 00	Not separately mentioned.	—
	Group 4.—Paper Hangings.				
205	Paper, printed on natural ground - - - - - -	35 75	27 50	Paper printed with gold, silver, wood, or glass - - - - -	Per 100 kilogs. 130 00
206	Ditto, ditto, on glazed or lustrous ground - - - -	65 00	50 00		
207	Ditto, ditto, with gold, silver, flock, or glass - - -	Per kilog. 2 60	Per kilog. 2 00	Ditto, of other kinds - - -	23 84
	Group 5.—Pasteboard and various papers.				
208	Straw paper, common packing paper, and smoothing paper - -	Per 100 kilogs. 14 10	Per 100 kilogs. 10 85	- - - - -	10 85
209	Ditto, thin, of impure pulp, for packing fruit - - - -	36 00	20 00	Not separately mentioned.	—
210	Other papers not expressly mentioned - - - - - -	52 00	40 00	- - - - -	35 00
211	Pasteboard and fine cardboard, glazed, and pressed in sheets - -	36 40	28 00	Not separately mentioned.	—

212	Other pasteboards in sheets, and boxes lined with ordinary paper, and other articles of pasteboard and "cartonpierre," not finished (Note 42)	10 40	8 00	-	-	-	-	-	95
213	The same objects finished, and pasteboard boxes with ornaments, or lined with fine paper or other materials - - - -	Per kilog. 1 95	Per kilog. 1 50	-	-	-	-	-	Per kilog. 1 35
	CLASS IX.								
	WOOD AND OTHER VEGETABLE MATERIALS EMPLOYED IN MANUFACTURES, AND ARTICLES MANUFACTURED THEREFROM.								
	Group 1.—*Timber.*								
214	Staves - - - - - - - - - -	Per 1,000 15 00	Per 1,000 10 00	-	-	-	-	-	Per 1,000. 2 00
215	Ordinary wood in boards, deals, rafters, beams, round masts, and timber for ship building - - - - - - -	Per cubic metre. 6 00	Per cubic metre. 5 00	-	-	-	-	-	Per cubic metre. 2 60*
216	Ordinary wood, planed or dovetailed, for boxes or floorings - -	10 80	9 00	-	-	-	-	-	2 65
217	Fine woods for cabinet-making, in boards, deals, logs, or pieces -	Per 100 kilogs. 0 70	Per 100 kilogs. 0 60	-	-	-	-	-	Per 100 kilogs. 0 55
218	Ditto, sawn or in veneers - - - - - - - -	5 85	4 50	-	-	-	-	-	4 48
219	Coopers' ware, with or without hoops - - - -	13 00	10 00	-	-	-	-	-	9 15
	Group 2.—*Furniture and wood manufactures.* (Note 43.)								
220	Ordinary wood manufactured into any kind of object, turned, painted, varnished, but not sculptured nor inlaid, and battens carved and varnished or prepared for gilding - - - - - - -	31 20	24 00	-	-	-	-	-	18 75
221	Fine wood manufactured into furniture or other objects, turned, carved, polished, and varnished; the same of common wood veneered with fine wood; the same covered, excepting with silk or its mixtures; or leather, provided there is no carving or sculpture thereon - -	65 00	50 00	-	-	-	-	-	33 75
222	Ditto, in furniture of all sorts, or in other objects, gilt, including battens, carved, sculptured, inlaid or veneered with mother-of-pearl or other fine materials and designs of metal, and those covered with silk or its mixtures or leather - - - - - - - - -	Per kilog. 1 95	Per kilog. 1 50	-	-	-	-	-	Per kilog. 1 03

* Duties applied whilst the treaties between Spain and Austro-Hungary, and between Spain and Norway and Sweden remain in force, 2.00 pesetas.

No.	Classification of Articles.	Rates leviable by New Tariff of 1st February 1892.		Classification of Articles.	Rates leviable hitherto on Imports from United Kingdom.
		General Tariff.	Special Tariff.		
	CLASS IX—*cont.*	Per 1,000 kilogs. Pes. cts.	Per 1,000 kilogs. Pes. cts.		Per 1,000 kilogs. Pes. cts.
	Wood and other Vegetable Materials employed in Manufactures, &c.—*cont.*				
	Group 3.—Various.				
223	Charcoal, firewood, and other vegetable combustibles - - - -	1 20	1 00	- - - - -	0 50
224	Cork - - - - - - - - - - - - -	Per 100 kilogs. 1 15	Per 100 kilogs 0 90	- - - - -	Per 100 kilogs. 0 90
225	Wooden hoops, and trellis work for fencing - - - - - -	1 60	1 25	- - - - -	1 00
226	Esparto, not manufactured - - - - - - - - -	1 30	1 00	- - - - -	0 20
227	Rushes, vegetable hair, soft rushes, twigs, fine straw, palm and other analogous materials unmanufactured - - - - - -	0 30	0 25	- - - - -	0 20
228	The same materials, and esparto manufactured - - - - - -	39 30	30 25	- - - - -	30 24

Note.—The conclusion of the Spanish Tariff will appear in the April number of the *Board of Trade Journal.*

XVI.—NEW CUSTOMS TARIFF OF BARBADOS.

The following statement shows the rates of import duty leviable during the year 1892 in the island of Barbados, according to an Act passed by the Legislative Council of that colony on the 29th December last:—

Articles.	Duty. £	s.	d.
Arrowroot, touslesmois, and all other starches, the 100 lbs.	0	1	0
Bread, pilot and navy, and crackers, the 100 lbs.	0	0	3
Bricks, the 1,000	0	3	0
Butter, margarine, and their compounds, except oleomargarine, the 100 lbs.	0	7	6
Oleomargarine, the 100 lbs.	0	3	9
Candles, sperm, the 100 lbs.	0	8	4
Cement, the barrel	0	1	3
Cheese, the 100 lbs.	0	3	9
Coal and the mixed preparations thereof, and coke, the ton	0	2	6
Cocoa, the 100 lbs.	0	2	1
Coffee, the 100 lbs.	0	2	6
Cordage (except twines), the 100 lbs.	0	1	6
Corn meal, the barrel of 196 lbs.	0	0	11¼
Meal, other kinds, the barrel of 196 lbs.	0	1	3
Corn or maize, and wheat, unground, the 100 lbs.	0	0	4½
Firearms, each	0	10	0
Fish, dried, salted, or smoked, the 112 lbs.	0	0	2½
Do., pickled, the barrel	0	0	5
Flour, wheat, or rye, the barrel of 196 lbs.	0	3	1½
Grain, other than corn, maize, wheat, or oats, unground, the 100 lbs.	0	0	6
Oats, per 100 lbs.	0	0	7½
Horses, under 13½ hands high, each	0	10	0
Do., all others, each	2	0	0
Lard and its compounds, the 100 lbs.	0	2	1
Liquors:			
Malt liquor, cider and perry, in wood, the cask 64 galls.	0	18	9
Do. do., in bottles (reputed quarts), the dozen	0	1	3
Spirits and cordials (except rum and gin and perfumed spirits to be used as perfumery only), the gallon	0	7	6
Gin, for every gallon below or equal to proof by Sykes' hydrometer	0	5	0
Do., for every higher degree of proof, in proportion.			
Rum, for every gallon below or equal to proof by Sykes' hydrometer	0	5	0
Do., for every higher degree of proof, in proportion.			
Wine, sparkling, per gallon	0	2	6
Do., all other kinds, per gallon	0	0	11¼
Matches, lucifer and other kinds, the gross of 12 doz. boxes, each box to contain not exceeding 100 sticks	0	1	0
Do., boxes containing any greater or less quantity to be charged in proportion.			
Meat:			
Beef, salted or pickled, the 100 lbs.	0	3	9
Pork, salted or pickled, the 100 lbs.	0	3	9
Bacon and bacon hams, the 100 lbs.	0	2	6
Metals, new:			
Composition nails, bolts, bars, rods, spikes, and rivets, the 100 lbs.	0	4	2
Copper, in sheets, rods, bars, bolts, spikes, nails, and rivets, the 100 lbs.	0	4	2
Iron hoops, bars, and rods, the 100 lbs.	0	0	4
Do. nails, spikes, rivets, and clinches, the 100 lbs.	0	1	0
Lead pipe, the 100 lbs.	0	1	0
Yellow metal in sheets, the 100 lbs.	0	4	2

Articles.	Duty. £	s.	d.
Metals, old:			
Copper, brass, and pewter, the 100 lbs.	0	2	0
Mules of the value of 12*l.* 10*s.* and upwards cost	0	15	0
Do. under the value of 12*l.* 10*s.* cost	0	10	0
Oilmeal and oilcake, the 100 lbs.	0	0	5
Petroleum and its products, crude or refined, the gallon	0	0	1⅞
Rice, the 100 lbs.	0	0	6
Soap, the 100 lbs.	0	1	3
Sugar, refined, the 100 lbs.	0	10	0
Tallow, the 100 lbs.	0	2	0
Tea, the lb.	0	0	3
Tobacco:			
Cigars, cheroots, and cigarettes of all kinds, the lb.	0	5	0
Snuff, the lb.	0	1	6
Other, manufactured, the lb.	0	1	6
Other, manufactured, if in outer packages of less than 80 lbs. net weight each, the lb.	0	2	0
Leaf, the lb.	0	1	0
Leaf, if in outer packages of less than 50 lbs. net weight each, the lb.	0	1	6
Wood:			
Hemlock, birch, beech, white pine, and spruce, the 1,000 ft. superficial measurement of 1 in. thickness	0	5	0
Pitch pine, in rough or prepared, for building, the 1,000 ft.	0	3	9
Hoops, whether coiled or straight, the 1,200 pieces	0	6	0
All other kinds except in naves, felloes, spokes, and unsquared posts, the 100 cubic feet	0	8	4
Shingles of all descriptions, the 1,000	0	1	6
Staves, white and red oak, whether loose or made up in bundles or shooks, the 1,200 pieces	0	3	0
Oxbows, the dozen	0	0	6
Truss hoops, the set of nine	0	1	3

All other articles not in this table particularly enumerated or in the table of exemptions to pay 8 per cent. *ad valorem*, except boots and shoes made wholly or in part of leather which shall pay 4 per cent. *ad valorem*.

The following articles are exempted from duty:—

All articles for the use of the Governor of the Island.

All articles and things whatsoever imported by the local government for the police or for public institutions.

All articles specially imported for the use or decoration or building or repairing of any place of worship, and not imported for sale, on the certificate to that effect of the officiating minister.

All articles and things of every description imported by any naval officer on full pay in Her Majesty's service for his use and accommodation, on the certificate to that effect of the officer so importing.

The Governor, purchasing any articles whatsoever, shall be entitled to have the duty refunded to him out of the Public Treasury on the warrant of the Governor in Executive Committee, on the certificate that he is entitled to the refund.

Where horses are purchased by the Governor, direct from the importer within six months after the date of import, the duty shall be allowed him on the warrant of the Governor in Executive Committee, on the certificate that he is entitled to the refund.

All articles and things of every description, imported as general, military, or naval stores for the use of Her Majesty's military and naval forces, and all building materials and supplies, imported or taken out of bond under the authority of Her Majesty's Treasury, for military and naval services, under certificate from the head of the department concerned. Chargers imported by, and *bonâ fide* the property of field officers, or departmental officers of relative rank, or of staff officers or adjutants of regiments, and necessary for the proper discharge of

their military duties, under a certificate from the Assistant Adjutant-General.

Articles of personal and horse equipment necessary for the performance of military duty, under a certificate from the head of the department concerned. Horses imported for the commissariat department or purchased for the commissariat department within six months of their being imported, under a certificate from the head of the commissariat department.

Animals alive—to include only asses, sheep, goats, hogs, and poultry, and horses for breeding.

Asphalt.

Beef—including tongues, smoked and dried.

Beef and pork preserved in cans.

Belting for machinery of leather, canvas, or india-rubber.

Blubber and heads and offals of fish.

Boats and lighters.

Bones and horns.

Books bound and unbound, pamphlets, newspapers, and printed matter in all languages, forms, and papers (whether printed or manuscript), maps, charts, school globes, engravings, music, pictures, statues, and other works of art.

Bottles of glass or stoneware.

Bran, middlings and shorts.

Bridges of iron or wood, or both combined.

Brooms, brushes, and whisks of broom straw.

Bullion, coin, and diamonds, including gold and silver coin of the United States.

Calves, sucking, and foals.

Cassaripe.

Candles, tallow.

Carts, waggons, cars, and barrows with or without springs, for ordinary roads and agricultural use, not including vehicles of pleasure.

Cattle.

Clocks, mantle or wall.

Copper, bronze, zinc, and lead articles, plain and nickel plated, for industrial and domestic uses, and for building.

Cocoa-nuts.

Cotton wool.

Cotton seed and its products.

Crucibles and melting pots of all kinds.

Eggs.

Fresh fish and turtle.

Fish on ice and salmon and oysters in cans.

Fishing apparatus of all kinds.

Fruit and vegetables, fresh and dried, when not canned, tinned, or bottled.

Fresh meats.

Fuel, wood and charcoal.

Gas fixtures and pipe.

Gravel, sand, soil, earth, and peat.

Green ginger.

Hay and straw for forage and other purposes.

Hoesticks.

Horses brought into the island by equestrian companies, provided the same are taken away by them on leaving, and race horses on every occasion after the first importation thereof, provided no drawback had been claim thereon on exportation.

Houses of wood complete.

Hulls, boats, masts, spars, apparel, tackle, and furniture of vessels condemned by survey, and on which tonnage duty shall have been paid.

India-rubber and gutta-percha goods including waterproof clothing made wholly or in part thereof.

Implements, utensils, and tools for agriculture, exclusive of cutlasses and forks.

Lamps and lanterns.

Leeches.

Lemon and lime juice.

Lime—building and temper—and all other kinds of limestone.

Live and dead stock not enumerated in Table A.

Locomotives, railway rolling stock, rails, railway ties, and all material and appliances for railways and tramways.

Logwood.

Machinery to be used for the reaping or manufacture of sugar.

Manure, including fertilisers of all kinds, natural and artificial.

Marble or alabaster, in the rough, or squared, worked, or carved for building purposes or monuments.

Medicinal extracts and preparations of all kinds, including proprietary or patent medicines, exclusive of quinine or preparations of quinine, opium, gange, or bhang.

Metals, old iron and old lead.

Molasses.

Oars and sweeps.

Packages in which goods are imported, except new trunks, vats, hogsheads, and puncheons.

Passengers' baggage containing apparel and articles of personal use, and professional apparatus.

Patterns and samples of no intrinsic value.

Personal effects of individuals belonging to this island dying abroad.

Paper, of all kinds, for printing.

Paper, of wood or straw, for wrapping and packing, including surface-coated or glazed.

Photographic apparatus and chemicals.

Printers' ink, all colours.

Printing presses, types, rules, spaces, and all accessories for printing.

Pozzolana.

Quicksilver.

Rags.
Raw hides and skins.
Salt.
Sawdust.
Soda water and mineral water.
Specimens illustrative of natural history, seeds, bulbs, and roots, and cuttings of plants or shrubs of all kinds.
Spars.
Sugar, raw or Muscovado.
Sugar, crystallised vacuum pan.
Sewing machines, and all parts and accessories thereof.
Shipbuilding materials and accessories of all kinds when used in the construction, equipment, or repair of vessels or boats, of any kind except rope and cordage of all kinds, including wire rope.
Starch of Indian corn or maize.
Steam and power engines and machinery and apparatus, whether stationary or portable, worked by power or by hand, for agriculture, irrigation, mining, the arts and industries of all kinds, and all necessary parts and appliances for the erection or repair thereof, or the communication of motive power thereto.
Steam boilers and steam pipes.
Sulphur.
Tablets and tombstones and all the appurtenances thereto, imported specially for immediate erection and not for sale on certificate of the person for whom imported.
Tar, pitch, resin, and turpentine.
Turtle and tortoise shell unmanufactured.
Tan, bark, of all kinds, whole or ground.
Telegraphic wire, telegraphic, telephonic, and electrical apparatus, and appliances of all kinds for communication or illumination.
Trees, plants, vines, and seeds and grain of all kinds for propagation or cultivation.
Varnish not containing spirits.
Wall papers.
Watches when not cased in gold or silver, and watch movements uncased.
Water pipes of all classes, material, and dimensions.
Wire for fences, with the hooks, staples, nails, and the like appliances for fastening the same.
Yeast cake and baking powders.
Zinc, tin, and lead in sheets, asbestos, and tar paper for roofing.

XVII.—EXTRACTS FROM DIPLOMATIC AND CONSULAR REPORTS.

Advice to English Manufacturing Exporters.

Mr. F. R. St. John, Her Majesty's Minister at Belgrade, in a despatch to the Foreign Office, dated the 24th February, encloses copy of a letter received by Messrs. G. Fuller and Co., commercial agents at Belgrade, from Messrs. Carpenter and Tildesley, patent lock manufacturers at Willenhall, in Staffordshire, in which this firm refer to a Foreign Office circular to Chambers of Commerce respecting the opening of a commercial agency at Belgrade by Messrs. Fuller, and offer, if required, to so modify their existing patterns as to adapt them to the requirements of the Servian market. Mr. St. John is of opinion that this offer is of an unusual character among British manufacturers, and addresses himself to this point in the following terms:—

"During my 12 years' experience in South and Central America, where I was in constant contact with commercial houses of all nationalities, I have frequently had occasion to draw the attention of Her Majesty's Government to the persistent refusal of British manufacturers to follow the policy pursued in this respect by Germany, whose commerce has so successfully supplanted our own in those countries, notably did I do so in my reply from Caracas to the late Earl of Iddesleigh's circular on the depression of trade.

"It is notorious that when any such suggestions as are now asked for by Messrs. Carpenter and Tildesley have been made by those having local knowledge of the Spanish-American consumers' requirements, the answer has invariably been on the principle that it was for the latter to conform his fancies and tastes to what was offered him for sale, or leave it alone."

Banking Facilities at Odessa.

In a report to the Foreign Office, dated the 8th February, Mr. P. Stevens, Acting British Consul-General at Odessa, notifies the inauguration in that city on the 6th February of a branch office of the "Crédit Lyonnais," which has commenced banking operations on a large scale.

The Hamburg Mercantile Marine Service.

Mr. C. S. Dundas, Her Majesty's Consul-General at Hamburg, writing to the Foreign Office, under date of the 9th February, with regard to changes in the Hamburg mercantile marine service, says:—

The steamships belonging to the Hansa line which has been running between Canada and Hamburg, and lately extended their operations to Boston, U.S., have been taken over by the Hamburg-American Company. Various reasons have contributed towards

this step, which has for some time been in contemplation. In the first instance, there was, since the Hansa line had extended its operations to Boston, the possibility of the interests of the two companies clashing, considering the proximity of Boston to New York. After the extension, it was found that in order to ensure the required regularity the company would have had to incur the costs of three new steamers at least, and finally it became evident that two companies trading over practically the same route should amalgamate. By this transfer of the vessels of the Hansa to the Hamburg-American Line the fleet of the latter now numbers 56 vessels, and will continue the service from Hamburg to Canada and Boston, on which, however, larger steamships will probably be employed.

It is considered not improbable that this amalgamation may lead to that of other lines where similar conditions exist, such as the Calcutta-Australian and the Sunda lines and the Kosmos and the Pacific lines.

Foreign Agents in Bavaria.

The following notice was issued from the Foreign Office on the 18th February last:—

The attention of British companies, and especially insurance companies and of their agents, is called to the amendment recently made in the Bavarian Police Code, Article 134, which renders persons who act as agents, or offer to act as agents, for foreign companies not authorised to extend their business into Bavaria, liable to punishment by fine and in certain cases by imprisonment.

The Bilbao Mineral Trade.

Mr. Horace Young, Her Majesty's Consul at Bilbao, in a report to the Foreign Office, dated the 24th February, supplies the following particulars of the export trade in iron ore from that port:—

The export of iron ore from Bilbao to ports of the United Kingdom and foreign ports during the year 1890 was as follows:—

To the United Kingdom.—Middlesbro', 781,331 tons; Cardiff, 486,147 tons; Glasgow, 467,634 tons; Newcastle, 452,039 tons; Newport 374,397 tons; West Hartlepool, 80,748 tons; Swansea, 79,919 tons; Stockton, 71,595 tons; Bo'ness, 48,165 tons; Maryport, 47,752 tons; Sunderland, 43,850 tons; Ayr, 29,412 tons; Port Talbot, 24,420 tons; Ardrossan, 16,649 tons; Porthcawl, 7,993 tons; Workington, 5,978 tons; Briton Ferry, 5,110 tons; Garston, 4,813 tons; Grangemouth, Boston, Llanelly, Bowling, South Shields, Birkenhead, 11,780 tons. Total for ports in the United Kingdom, 3,040,562 tons.

To Foreign Ports. — Rotterdam, 525,730 tons; Ferneuzen, 72,692 tons; Amsterdam, 49,558 tons. Total, 647,980 tons, Antwerp, 106,525 tons; Dunkirk, 248,581 tons; Bayonne, 95,295 tons; St. Nazaire, 40,234 tons; Bordeaux, 2,066 tons; La

Rochelle, 2,246 tons; Nantes, 94 tons. Total, 388,516 tons. Philadelphia, 76,694 tons; New York, 12,641 tons. Total, 89,335 tons. Total to foreign ports, 1,232,356 tons. Total both for United Kingdom and foreign ports, 4,372,918 tons.

Public Weighing Office at Venice.

The Marquis of Dufferin and Ava, Her Majesty's Ambassador at Rome, in a despatch to the Foreign Office, dated the 13th February, says that in consequence of repeated complaints made by masters of ships trading with Venice with respect to short delivery of cargo, the local authorities have recently established a public weighing office. Although they have endeavoured in every way to recommend it to foreign ship-masters, in which they have been cordially supported by Mr. Zuccato, the British Consul, the latter still to a large extent employ private weighers.

Under these circumstances the municipal authorities have appealed to the Central Government, and the Marquis di Rudini has accordingly addressed to the Marquis of Dufferin and Ava a communication explaining how the matter stands, and requesting him to take steps so that British shipowners and shippers may be made aware of the advantages they would enjoy by employing the public weighing office and not private firms.

Sir D. E. Colnaghi, Her Majesty's Consul-General at Florence, in a report to the Marquis of Dufferin and Ava, dated the 10th February, says that from the information he has received the reasons for the non-employment of the public weighing office on the part of British shipmasters would appear to be principally as follows:—

1. Because nearly all the ship brokers and ship chandlers, and a mercantile firm who are agents for three or four English companies carrying on permanent lines of steam navigation between England and Venice, oppose the public weighing office, as they want the cargoes to be weighed by their own weighers.

2. Because the company of private weighers, in order to combat the public weighing office, guarantee the delivery of the total weight of coal cargoes, as per bill of lading, and in case of short delivery make good the deficiency to the master by paying the money out of their own pockets.

The Metric System in Tunis.

In a report to the Foreign Office, dated the 1st March, Mr. R. Drummond Hay, Her Majesty's Consul at Tunis, transmits a cutting from the *Journal Officiel Tunisien* of the 25th February 1892, containing copy of an order issued by the Tunisian Government dated 31st January, instituting a commission to study the means for the application of the metrical system in the Regency.

Shipping Facilities at Zanzibar.

Mr. G. H. Portal, Her Majesty's Agent and Consul-General at Zanzibar, in his report for the year 1891, dated the 17th November, says:—

A certain amount of improvement affecting the shipping interests has been effected within the last three months. An English harbour-master has been appointed, and a force of harbour police is being organised. Quite recently six large new buoys have been carefully laid down, with the help of an officer of Her Majesty's navy, which clearly mark and greatly facilitate the entrance to this harbour in the daytime. All this is being done gratuitously by the Zanzibar Government, who have gone to considerable expense in the matter, but the reform which is most wanted in this connexion is that of the lighthouse administration.

Until the whole system of lights is thoroughly overhauled and reorganised from top to bottom, until new lighthouses are constructed and the old ones become trustworthy, there can be no safety for ships approaching these shores at night. As it is, accidents to vessels from this cause are not unfrequent, and narrow escapes are of common occurrence.

Unfortunately, in the present state of its finances, the Government of Zanzibar cannot, in justice to itself, undertake the expensive operation of setting the whole of this department on a thoroughly satisfactory basis until sufficient dues are levied on shipping to defray the expenses of harbour and light administration.

As soon as this can be arranged, the Zanzibar Government will not wait for the collection of the necessary funds, but will anticipate the effect of the tax, and will not lose a moment in commencing the construction of new lighthouses where they are most needed. The whole of this department will then be reorganised in such a manner as will effectually guarantee the trustworthy service of the existing lights, and will enable the hydrographers of Her Majesty's Admiralty or Board of Trade to remove from their charts the warning, that "the Zanzibar lights must not be considered trustworthy."—(*No.* 982, *Foreign Office Annual Series.*)

Shipping Statistics of Zanzibar.

Mr. G. H. Portal, Her Majesty's Agent and Consul-General at Zanzibar, in a report to the Foreign Office, dated the 26th January, forwards the complete shipping returns for the whole of the year 1891. The total number of arrivals in 1891 was 176, with a tonnage of 215,866. British vessels numbered 41, French 27, German 42, Portuguese 29, and other nations 37. As compared with the corresponding quarter of the previous year the returns for last October to December show an increase of 20,710 tons in the class of ocean-going ships, and an increase of 2,042 tons in the class of coasting steamers.

Regulations affecting River Navigation in Ecuador.

Mr. G. Chambers, Her Majesty's Consul at Guayaquil, in a report to the Foreign Office dated the 3rd February, says that under date of 1st January 1892, a decree, of which the following is a translation, has been published in the *Diario Oficial* of Quito, detailing the rules in force for navigation in the rivers of the Republic of Ecuador:—

1. To avoid grounding, every steamship will navigate in the middle of the river so far as its draught, the tide, and other circumstances that require consideration will permit.

2. Every steamship that meets another will go to the right, so that each will pass to the left of the other, will slacken speed in bends and turns, and the one proceeding down stream will whistle so soon as she has sighted the one coming up.

3. Steamers or sailing ships when navigating by night will go at half speed, have a green light on the starboard and a red on the port side, so that on passing they will show the same light, according to the practice generally established.

4. Every vessel on anchoring must put out the coloured lights and hoist a white one on the fore-mast; small craft on any mast they may have.

5. The vessel that cannot observe the directions set forth in Art. 2 will whistle twice and stop engines, so that the other may do what is most convenient to avoid a collision.

6. In narrow turns three consecutive whistles will be given to warn small craft, to the end of avoiding all danger.

7. So as to prevent the velocity of the current added to the force of the engines rendering it difficult for the captains to avoid the continual dangers they have to escape, no vessel navigate down river at night in winter time in the river of Vinces or from Balzar to Daule, or from Ventanas to Babahoyo, unless the night is so clear that there be no danger whatever of accident.

8. Steamships will regulate their movements by those of the sailing vessels they meet, so that the latter may freely elect the course that suits them.

9. The steamship that may require assistance of another will make this known by four whistles, and the vessel called is under the obligation of rendering her what services she can and to take off her passengers; should the incident delay her voyage for more than six hours, with no other remuneration than that of reciprocity in similar cases.

10. Every vessel will bear marked upon her the floating (or load) line, and shall not receive more cargo than this will allow.

11. Between the sailing of vessels from the same port a quarter of an hour at least shall elapse.

12. Captains of ports shall not authorise the sailing of any vessel before making sure that it carries the regulation lights and that the pilots are acquainted with their use.

XVIII.—GENERAL TRADE NOTES.

The World's Production of Honey.

The *Journal de la Chambre de Commerce de Constantinople* for the 6th February publishes the following particulars respecting the production of honey in different countries:—

The largest natural hive in the world is that of Kentucky, known under the name of "Mammoth Beehive." It is in fact a cavern, the largest compartment of which is 150 feet high, and which extends to about 10 acres. It is in very hard rock, and the whole height is covered with honey by the bees.

M. Bertrand, a famous French apiculturist, has hives containing 26 rows, being double the ordinary English hives.

The largest beekeeper in the world is M. Harbicon, of California, who possesses 6,000 hives, supplying 200,000 pounds of honey per annum.

The following shows the production in the several countries:—

The United States comes at the head of the list. There are estimated to be 2,800,000 hives belonging to 70,000 rearers, and producing 61,000,000 pounds of honey yearly.

In Europe, the production of honey is distributed as follows: in Greece there are 30,000 hives, producing 3,000,000 pounds of honey; in Denmark, 90,000, producing 2,000,000; in Russia, 110,000 hives, producing the same quantity: in Belgium, 200,000 hives producing 5,000,000 pounds; in the Netherlands, 240,000 hives, producing 6,000,000 pounds.

In France a yield of 25,000,000 pounds is obtained from 950,000 hives. In Germany and Austria the production is very nearly the same. It reaches for each of these two countries 40,000,000 pounds with a slightly larger number of hives (in Austria, 1,558,000 hives in place of 1,450,000 in Germany).

It has been calculated that a bee must visit 218,750 flowers for each ounce of honey gathered.

The *Auxiliaire de l'Apiculture* says that apiculture is assuming remarkable progress in France. It is always an element of national wealth which goes on developing. The bees do wonders under the cares of the French apiculturists. With the aid of thin strips of worked wax, the work in the hives can be controlled.

In one of the hives recently exhibited at the orangery in the Tuileries at Paris, the bees were by this means induced to place their cakes of honey in such a way as to form the following letters: *Hommage à M. Carnot.*

The Portland Cement Industry.

Bradstreet's for the 13th February publishes the following abstract of a paper by M. Pierre Giron, recently read before the Engineers' Club at Philadelpha :—

"The present annual production of Portland cement in Europe amounts to over 20,000,000 barrels, and its commercial value to over 36,000,000 dols. The first factory was established at Northfleet, on the Thames. The process was so crude that in 1850 only four factories were in operation. In England there are now over 8,300,000 barrels made each year. The process used there is about the same as it was 20 years ago. The raw materials are chalk and clay, both very pure, and, although inferior processes are used, they make a satisfactory cement. A few years ago the entire product of the kilns was put on the market, but the fineness of the continental cements led English makers to improve their facilities, although even now English cement is not, as a rule, as firm as Geneva or French Portland.

"The manufacture was first introduced into Germany in 1852. To-day there are 60 large works, having the same annual production as England. The raw materials are of exceedingly unfavourable character, but the makers have made a serious study of the properties and uses of Portland cement, and the producer now knows exactly what rules to follow to regulate his operations and the consumer can depend on the product offered him. The Association of Manufacturers has had much to do with the immense development of the industry in Germany.

"In France the industry grew slowly, the total output in 1880 hardly exceeding 750,000 barrels a year. To-day the output is 1,800,000 barrels. The works of the Company of French Cements at Boulogne-sur-Mer form the largest Portland cement factory in the world, turning out about 800,000 barrels a year. In Russia the first works were established in 1857, and there are now eight Portland cement works, making 900,000 barrels a year. In Belgium there are four works, producing 800,000 barrels. In Italy the Portland cement industry does not properly exist, although a certain kind of natural Portland is made. In Denmark, Norway, and Sweden there are ten factories, making about 800,000 barrels.

"Portland cement was imported into the United States as early as 1868. In 1882 the amount imported was 370,406 barrels, and last year it exceeded 3,000,000 barrels. But little effort has been made to develop the manufacture there. The materials for manufacture are as hard to handle as any in Germany, and the processes are similar. These are: 1. Grinding the rock into fine powder; 2, moulding it into bricks; 3, drying the bricks; 4, burning in an intermittent kiln with alternate layers of coke; 5, grinding the clinkers.

"These operations require about eight days, and require great care to produce a uniform product. The cost of the system is too great to make it successful in America. The process used

in the Portland cement works at Coplay, Pa., has entirely revolutionised the science of cement-making. Here the raw compound is burnt in a powdered condition while travelling in an inclined rotary furnace in an intensely hot petroleum flame, and a few hours is sufficient to finish the process. The cement is guaranteed to stand 400 lbs. in seven days, 500 lbs. in a month, and 600 lbs. in three months, and to leave no more than 10 per cent. residue on a No. 80 sieve."

Historical Account of Kew.

The December number of the *Kew Gardens Bulletin* contains an historical account of Kew previons to 1841. The occasion of the jubilee of the establishment as a national institution—Sir William Hooker having commenced his duties as Director of Kew on the 1st April 1841—has been taken advantage of to give some account in the pages of the *Bulletin* of the origin and development of the Royal Gardens as a place of botanical study. The history of the last half-century will be given in another number of the *Bulletin*.

"Our Commercial Barometer for the Year 1891."

This is the title of the second annual report, which is a reprint of monthly articles in the *Journal of the Imperial Federation League*, together with abstracts for the same for the years 1889–91, and supplementary report for 1891. The report, which is prepared by Sir Rawson W. Rawson, chairman of the commercial committee of the Imperial Federation League, gives information under the following heads:—Report for the year 1891; abstracts for the years 1889–91 of the tonnage, value, and price of imports, exports, coal exported, and exports exclusive of coal; abstracts of per-centage increase and decrease under each of the above heads in each month of 1891; abstracts of per-centage increase or decrease in value of each group of articles of import and export in each month of 1891; comparison of British and Irish and foreign and colonial merchandise exported in each month of 1891; monthly record, January to December (reprint).

German Industrial Market.

The *Bœrsen Halle* of Hamburg, writing with regard to the state of the German industrial market, says that on all sides commercial circles have entered on the new year with confidence, favourable symptoms pointing to an improvement in the state of

affairs being more marked than had been hoped. The year 1891 was not, according to the *Bœrsen Halle*, a fortunate one for German trade, and very few industries have been able to increase their incomes and enlarge the field of their operations.

At the present time the export trade is very active. There are numerous foreign buyers in Germany.

The Indies and Australia have given large orders. The Cape and Natal have no longer remained in the background. Travellers in the countries bordering on the Danube, Sweden, Italy, Switzerland, and the Netherlands send satisfactory orders.

German home trade has been better, the new year's purchases having been larger than was anticipated. Such extensive inroads have been made into many of the stocks as to give place to extensive renewals.

The payments by small traders consequently have been effected more readily. There still remain numerous small houses in such great difficulties that they can scarcely withstand failure. What will perhaps hasten their failing is the step taken by the principal merchants and the large commercial houses in not giving such long credits as formerly. The way in which these houses gave their credit, in order to increase the output of goods, was certainly exaggerated.

New Patent Law of Germany.

In a recent report to his Government, the United States Consul-General at Berlin encloses the following translation of an extract from the *Hanover Courier* concerning the provisions of the new patent law of Germany:—

The new patent law which went into force on October 1st, contains a number of provisions which differ very materially from the former requirements of law, and a knowledge of these new provisions is therefore of great importance both to producers and consumers of patented articles. While formerly the industrial use of products manufactured according to a patented process was not under patent protection, a paragraph added to section 4 of the new law provides that the effect of the granting of a patent for a process extends also to articles produced directly by such process. Accordingly, a dyer who obtains and uses in Germany dyestuffs which are patented in Germany, but which are produced in Switzerland without the consent of the owner of the patent, makes himself liable for breach of patent. This point was doubtful under the old law. The prosecution for such breach of patent is rendered easier for the owner of the patent in so far as, in accordance with section 35 of the new law, he is relieved of the burden of proof that the patented article placed on the market is produced according to this patented process; in future in suits for infringement of patent the burden lies on the defendant to prove that the article in question was produced by another process than the patented one. The above provisions are still more

sharpened by the fact that, according to the new structure of the law, not only those can be sued for damages who violate a patent knowingly, but also those who do so out of gross carelessness. All of these new provisions make it advisable that in interested industrial circles, and especially among small tradesmen, in future patented products should be handled with the greatest possible circumspection, with careful consideration of the new provisions of law, in order to protect themselves against the disadvantages arising from a breach of patent.

International Machinery Exhibition at Breslau.

The *Monde Economique* for the 27th February announces that an International Exhibition will be held this year at Breslau on the 13th, 14th, and 15th June for the sale of machinery.

Among the conditions to be observed by merchants are the following:—

The declarations for articles to be exhibited should be addressed, on special forms, to the "Commission de l'Exposition et marché des machines," 6, Mathias Platz, Breslau, where the necessary forms may be obtained free of charge.

The objects to be exhibited must be placed in position, at the least, three days before the opening of the exhibition, and foreign exhibitors are particularly requested not to delay in forwarding their products. Steam generators and motors can only be in motion within the precincts of the exhibition with the authority of the Inspector Royal of Roads and Bridges, M. Brinkmann, Elsasser strasse, 9, whilst it is necessary that this apparatus should arrive at least within 15 days before the opening of the exhibition.

Insurance against fire may be effected by exhibitors through the Thuringin "Assurance." The premium to be paid amounts, for period from the 8th to the 25th June, to one quarter per the thousand; the minimum amount to be paid for a policy is fixed at 1·50 marks.

The management of the exhibition and the distribution of space will be under the control of the Commission of the exhibition and of the exhibition of machines.

The Commission undertakes to take the necessary steps to obtain from the railway authorities the return journey free of carriage on Prussian railways, for articles which are exhibited but which may not be sold.

The Increase of Prices in France.

The *Journal des Débats* has the following information on the increase in the price of commodities in France:—

It is difficult, at the present time, to arrive at the increase in price which has taken place in articles of food by reason of the application of the new Customs tariffs. The majority of the

provision shops are in possession of large stocks, which they are selling at the prices previously obtained. However, the salted provision merchants have expressed the intention to change their present prices and to increase by from 20 to 25 per cent. the tariffs for all articles of foreign origin.

On the other hand, butcher's meat, chiefly mutton, is already subjected to a large increase; for instance, the price of the average leg of mutton has been increased from 1 franc to 1·20 franc, whilst meat for stewing, which was formerly quoted at 40 centimes per pound, now sells at 65 centimes.

It is also announced that the principal restaurant keepers have increased their tariffs.

Drink has also been affected as well as food. The price of beer is increased by 5 centimes per quart, in spite of the protests of the consumers. In respect of wine, the increase in prices is stated to be more serious, by reason of the extraordinary change of the duty, which has been increased tenfold.

Commercial Museum at Toulouse.

The *Journal de la Chambre de Commerce de Constantinople* for the 13th February says, that it has been decided to establish at Toulouse a commercial and industrial museum of samples, and a permanent exhibition of raw and manufactured products applicable to the arts and industry, of agricultural products, of catalogues and of models and apparatus or reproductions of the same by means of drawings.

An information bureau will be connected with it and will be in a position, while supplying information as to the articles exhibited, to receive orders for houses which have not representatives on the spot.

The opening of the Toulouse museum will take place in the course of the present month (March).

Electricity and the Looms of St. Etienne.

Writing with regard to the introduction of electricity into the weaving industries of St. Etienne, the United States Commercial Agent at that town says:—

The city council of St. Etienne has decided upon a departure which will have an important effect on the silk and ribbon industries, both in Europe and in America.

It has been resolved to apply electric motive power to all the hand looms in the city, and contracts have been made with an electric company for the necessary plant and currents.

The electric dynamos are to be driven by water from the city reservoirs. There is practically an unlimited supply of water in

the reservoirs, with a fall of upwards of 100 ft. The cost of producing the electricity will be reduced to the lowest point possible.

To grasp the importance and far-reaching results of this innovation it is necessary to understand that the bulk of the enormous output of ribbons (4,500,000*l.* a year) is the product of house industry. The weavers for the most part own their own looms and operate them by hand in their own houses. There are 18,000 looms which are thus distributed among the homes of the weavers, while the number of looms driven by steam in the few ribbon factories of the town is only 5,000. The 18,000 looms of the independent weavers are valued in the aggregate at 900,000*l.*

What the city of St. Etienne proposes to do is to convert each one of the 18,000 hand looms into a power loom driven by electricity. Electric light will also be furnished.

The result of this change from slow, laborious, uncertain hand-power to the swift, regular, unfailing power furnished by electric motors will be an increase in the productive capacities of the looms and a considerable reduction in the general expenses of fabrication. In other words, art will be wedded to modern machinery.

The weavers of St. Etienne have always been the most artistic ribbon-makers in the world, but they have enjoyed few mechanical advantages. Now the old order of things is to be changed, and the products of the St. Etienne ribbon-looms, which have been a trifle more costly than similar products in some other countries, notably in Switzerland, will be turned out at the lowest possible prices. The weavers employed in the ribbon trade number 70,000 souls.

The Austrian Parquet-making Industry.

A Paris correspondent writes to the *Handels Museum* as follows:—

"The breaking off of trade conventional relations between France and Spain has robbed the latter of her best market for mosaic parquet manufactures. The duties levied under the new Spanish maximum tariff on this class of manufactures is enormous, viz., 60 francs per square metre, as compared with 15 frs. in the minimum tariff and 5 frs. under the old conventional tariff. With a little effort the Austro-Hungarian parquet manufacturers would have little difficulty in ousting the Parisian article from the Spanish markets, thanks to our (Austro-Hungarian) convention with Spain. Little time must, however, be lost, as the Swiss parquet manufacturers are sure to do all in their power to capture the place recently occupied by Paris competitors in the markets of the Iberian peninsula.

"Spanish importers require very high class goods, such as parqueterie richly designed with various kinds of woods, and especially

with exotic woods, and the work must be both carefully and firmly executed. So conscientious are the Parisian parquet-makers in this respect that even for the foundation on which the parquet slabs rest (known as the *faux panneaux*) they use faultless oak, and the parquets themselves are made of wood which has been seasoning for five or six years. A large proportion of the raw materials for Parisian parquet wares comes from Hungary, so that Austrian industry, after acquiring practice in the Spanish markets, could enter into successful competition with Paris manufacturers in other markets, such as those of Portugal, South America, England, Algeria, Tunis, and Egypt."

Commercial Museum at Constantinople.

An intimation has been received from Messrs. Richard Shaw and Co., of Liverpool, to the effect that a permanent exhibition for displaying samples of produce and manufactures has been established at Constantinople.

Its object is to draw attention to and make known throughout the Ottoman Empire, as well as in foreign countries, the different kinds of hand and machine-made goods, and to give a larger extension to the demand for these goods by having permanently on show, in premises specially adapted for the purpose, properly classified samples, and by this means to contribute towards the extension of the commercial relations of the country with other States. The exhibition will be divided into two sections.

The first will contain samples of raw material produced in the Empire, specimens of manufactures, and other articles of Turkish make; while in the second section will be classed samples of British and foreign manufactures and products of all kinds. The museum will include a special bureau of commercial and industrial information, which will supply all possible details as to Customs tariffs, cost of goods at the place of production and their selling prices at the markets of consumption, the cheapest means of conveyance by sea and land, the charges attending the import and export trade with Turkey, and how such may be reduced to their lowest possible limits, with every other information on commercial matters that may be required.

The directors of the museum have the option of acting as intermediaries on behalf of manufacturers or merchants, who, with a view to protect their wares against spurious imitations, may be desirous of benefiting by the provisions of the law relating to trade marks, &c., or on behalf of inventors desirous of obtaining patents. A special book will be kept at the store in which entries will be made of the nature, quantity, value, place of origin, and the names of the senders of all goods exhibited in the magazin and sold through the medium of the directors, as also particulars of any improvements effected in the different articles of industrial produce.

The following are the rates for space in the museum:—1*l.* 7*s.* 3*d.* per square metre per annum; 18*s.* 2*d.* per ¾ of a square metre per annum, 13*s.* 8*d.* per ½ of a square metre per annum. 9*s.* 1*d.* per ¼ of a square metre per annum, for samples of any article or product whatsoever.

The Chinese Trade in Dog Skins.

The Commissioner of Customs at Newchang, in Manchooria, in a report upon the trade which is carried on at that port, in cloaks and rugs of dog and goat skins, says it is generally supposed that the dogs whose skins are used for making up these articles are stray dogs, taken anywhere, then killed, and the skins sold to merchants. This is not the case, although it is possible that this industry had such an origin. At present it is carried on systematically, as is the rearing of sheep.

In the whole of Manchooria, and especially in the eastern confines of Mongolia, there are thousands of herds of small dogs and goats, which yearly consist of from twenty to several hundreds of dogs, and which constitute a regular source of wealth.

A young girl, for example, will receive as a dowry a number of dogs in proportion to the fortune of her father.

It is improbable that in any other part of the world there may be found such fine dog skins, as regards length, thickness of hair and quality. The intense cold of these latitudes—where the thermometer marks 30° F. below zero—develops magnificent furs.

It is difficult to understand that the rearing of dogs can be carried on with profit, when the prices at which the mantles are sold are taken into consideration. For a cloak of large dimensions, that is to say, from 80 to 86 inches, at least eight animals are necessary.

Putting the sale price of a cloak at 14*s.* 6*d.*, this price leaves only about 1*s.* 6*d.* per skin, and also the cost of making up.

The dogs are usually killed in mid-winter, but not before they are eight months old. The skins are then sent to Moukdon and principally to Chinchaw, where they are prepared, sorted, and transformed into cloaks, and other articles.

Mining Development in China.

A good deal of attention is just now being paid to the mineral deposits in the Western Hills, 20 miles from Pekin. According to the *London and China Telegraph* for the 22nd February, these hills are very rich in this kind of wealth, and some of the coal-fields opened under the Ming dynasty are still worked; some of the tunnels leading to the seams are said to be from 5 to 10 miles in length. In the range known as the Man Teh-koh coal is taken

out 2,700 feet above the plain, and the deposits are still wonderfully rich. Last year the Kaiping Mining Company surveyed some mines in the vicinity, owned by an Imperial prince, and found four seams at the depth of 200 feet, and of a thickness varying from 4 to 7 feet. Arrangements are now being made to work the Man Teh-koh mines conjointly with foreigners, for which the Imperial assent will be obtained. A tunnel of 800 feet must be constructed to carry the water from the mine into the valley, which separates the hill from another eminence of about 800 feet high. The latter hill has been surveyed and found to be rich in iron ore from base to summit. With the great demand for coal in Pekin there can be no doubt that these mines, if worked properly, would pay handsomely.

Boot Trade of the Philippine Islands.

The French Consul at Manilla reports that the boot and shoe wares of the Philippines leave much to be desired, and that good boots and shoes exist only in the memory of such residents as have lived in Europe. Ready-made boots in Manilla neither look well nor wear well, while they are very dear. The cause of the evil lies in the fact that bad leather is generally used. Both yellow leather and white canvas shoes are worn in Manilla, boots being chiefly worn in the rainy season. The French Consul is of opinion that good Parisian wares, of which a considerable quantity is sold in Manilla, could easily supplant the cheap German goods now ruling the market.

United States Immigration in 1891.

The following particulars respecting immigration into the United States in the calendar year for 1891 is taken from the report of the Chief of the Bureau of Statistics at Washington:—

The total number of immigrants arrived at ports in the United States in 1891 was 590,666 as compared with 491,026 in the previous year. The countries whence the immigrants arrived were as follows: — Austria-Hungary, 70,711; Denmark, 10,466; France, 6,527; Germany, 123,401; Italy, 68,481; Netherlands, 5,364; Poland, 31,285; Russia (except Poland), 73,177; Sweden and Norway, 52,262; Switzerland, 6,928; United Kingdom, 120,722 (England and Wales, 52,350; Scotland, 12,484; and Ireland, 55,888); all other countries, 21,342.

The above figures show a large increase in the volume of immigration into the United States during the last calendar year. The greatest increase was from Russia (except Poland), Germany, Poland, Sweden and Norway. There was a decrease in the immigration from England and Wales and from France.

Petroleum Production in the United States in 1891.

Bradstreet's of the 30th January says that:—

"The petroleum production in the United States in 1891 was the largest in the history of the industry. In 1889 the total production was 35,163,513 barrels, of which Pennsylvania and New York produced 21,487,435 barrels; Ohio, 12,471,466 barrels; West Virginia, 544,113 barrels; Colorado, 316,476 barrels; California, 303,220 barrels. The remainder was produced in Indiana, Kentucky, Kansas, Texas, and Missouri. No detailed figures have been published for 1890, but production was in the neighbourhood of 46,000,000 barrels, of which about 29,000,000 were produced in New York, Pennsylvania, and Northern West Virginia, a little over 1,000,000 in the Macksburg district, over 15,000,000 in Lima, and 1,000,000 in other districts, making a total of 46,000,000. The production in 1891 was approximately 50,150,000 barrels, of which Pennsylvania, New York, and West Virginia produced about 34,500,000 barrels; Macksburg, less than 400,000 barrels; Lima, about 14,500,000 barrels; California, 350,000 barrels; Colorado, 325,000 barrels; and the rest of the country 50,000 barrels."

Iron and Steel Production of the New England States.

A recent bulletin issued from the office of the Superintendent of Census at Washington shows that, although a decrease has taken place in the number of establishments in the New England States engaged in the manufacture of iron and steel in 1890 as compared with 1880, due principally to local causes affecting the supply of raw materials, there has been an increase in the value of finished products.

In 1870 there were 48 iron and steel establishments in New England, with an invested capital of 5,009,000 dols., which employed 3,815 hands, to whom 2,168,719 dols. in wages were paid, and which consumed materials costing 7,338,150 dols., producing manufactures valued at 10,824,603 dols.

In 1880 the number of establishments had increased to 61, with an invested capital of 11,560,408 dols., the workmen numbering 8,654, and receiving wages amounting to 3,357,911 dols., the cost of materials being 9,518,570 dols., and the value of products amounting to 14,558,627 dols.

In 1890 the number of establishments had decreased to 35, but the total capital invested had increased to 13,415,450 dols. The hands employed, excluding officers and clerks, numbered 6,645, receiving wages amounting to 3,224,318 dols. The cost of materials consumed was 9,286,050 dols., and the value of the products was 15,105,441 dols.

The decline in the iron rolling mill industry of New England has been due chiefly to conditions peculiar to locality rather than to causes affecting the industry at large. The rapid growth of the iron and steel industry in other sections of the country, where pig iron and fuel can be obtained at much lower cost, has gradually narrowed the market of most of the New England iron mills to the limits of local demand, and even much of this trade has been absorbed by manufacturers in more favoured localities. The natural resources that are required for the profitable operation of rolling mills and steel works are lacking in New England. There is is no local supply of either fuel or pig iron. Although considerable pig iron is made in Massachusetts and Connecticut the entire product is used for foundry purposes. The small quantity of pig iron that is consumed by the New England rolling mills and steel works is brought from other producing regions, and all the coal and coke is similarly obtained. At the present time scrap iron constitutes the chief dependence of the rolling mills of New England, and this is the only raw material of which there is a local supply, the railroads and diversified manufacturing industries furnishing it in considerable quantity.

The Commercial Needs of South America.

The following remarks by an observer who has travelled extensively in Peru, Ecuador, and Bolivia, are quoted by the *South American Journal* as being of interest in connexion with the commercial requirements of these countries :—

"The stores are gay with foreign stuffs of the most brilliant colours, coarse, shaggy woollen materials finding the most ready sale. There is a call also for bright coloured velvets, brocades, and silks, which the richer Cholas, or half-breed women, manufacture into skirts. Nearly all the boots and shoes worn here are of home manufacture, as the natives require peculiar shapes; many of the styles are very elaborate. The Indians are now discarding their old-fashioned ponchos for new styles woven here of foreign worsteds. Hoes, spades, shovels, mattocks, pickaxes, rakes, sickles, and trowels could be imported into Bolivia, but I think it would be hard to make the people adopt a modern plough. Iron plough points, however, would find a sale. There is an enormous demand for aniline dyes, and a good market for figured or flowered ribbons, bright coloured cheap cotton handkerchiefs, bleached and unbleached muslins, and cheap cloths and Cheviots. As for hardware, besides the implements mentioned above, I think there would be little demand for anything but locks and scissors. Much petroleum is consumed, as well as foreign stearine candles and enormous quantities of alcohol."

Mineral Wealth of Brazil.

An important bulletin on the forest and mineral wealth of Brazil has lately been issued by the Bureau of the American Republics. The *South American Journal* says that according to this report the forests of Brazil abound in woods of great value, some of the finest of which are said to be entirely unknown in Europe. With regard to mineral resources, Brazil, according to this very rose-coloured bulletin, is not less fortunate. Scientific explorers have found great deposits of coal and iron, and have also proved that the country possesses copper, manganese, and argentiferous lead ore. There are also mines of gold and diamonds. Diamonds are co-extensive with the gold deposits, and, like that metal, are most abundant in Minas Geraes, where they have been found since 1789. The most important locality known for the production of these gems is the district of Diamantina, in the above-named State. They are found in Parana, in the gravels of the river Tibagy, and in the beds of streams dry during the summer. Since the discovery of diamonds at the Cape of Good Hope the Brazilian production has greatly diminished. As regards iron, the State of Minas Geraes abounds with it. It is not found in veins or strata, buried deep in the earth, but in enormous beds, often lying at the surface, or in mountain masses. These vast deposits are worked only by small scattered furnaces, charcoal being used in the reduction of the ore. Of these small furnaces there are five groups, producing about 3,000 tons annually, the product being used in the surrounding districts in the manufacture of articles of home consumption, such as hoes, shovels, picks, drills, nails, horseshoes, &c. In the State of San Paulo are found deposits similar to the best Norwegian ore, and one of the mines is worked by the Government establishment near the village of Sorocaba. This establishment has two furnaces, and produced in one year about 790 tons of pig iron. The ore has about 67 per cent. of iron. In Santa Catherina, not far from a harbour accessible to the largest vessels, are vast deposits of hematite, containing on an average 30 per cent. of manganese and 20 to 30 per cent. of iron. In the State of Goyaz, as in Minas Geraes, are found enormous masses of the ore taberite.

Gold Prices in the Argentine Republic.

The *Buenos Ayres Standard*, in a recent issue, publishes a table showing the highest, lowest, and average prices, for each month, of 100 gold dollars, since January 1885 to the end of 1891, a period of seven years.

In 1885, the highest price for the year was 165 (April) and lowest 113 (January), the average being 137. In 1886, the highest was 160 (April) and lowest 110 (September and October); average 139. For the remaining five years the corresponding

figures were as follows:—Highest prices: 153 (December 1887), 160 (July 1888), 242 (September 1889), 326 (December 1890), and 461 (October 1891); lowest prices: 120 (January 1887), 137 (November 1888), 148 (January 1889), 211 (January 1890), and 301 (January 1891); average prices: 135 in 1887, 148 in 1888, 180 in 1889, 257 in 1890, and 373 in 1891.

Indian Wheat Trade.

The following particulars respecting the exports of Indian wheat are taken from the *Times of India* for the 13th February:—

The exports of wheat from India to Europe last year exceeded 1,397,000 tons, an increase on the shipments of the previous 12 months of 725,000 tons, and they were larger than the previous largest shipments in any year, that of 1886, by 265,000 tons, or 23·4 per cent. In the past seven calendar years the exports from the three great shipping ports have been as under:—

Years.	From Bombay.	From Kurrachee.	From Calcutta.	Total Tons.
1891	665,543	512,632	219,221	1,397,466
1890	272,644	334,042	65,439	672,125
1889	305,044	341,137	77,637	723,818
1888	483,035	149,277	148,776	781,088
1887	462,428	32,977	229,012	724,417
1886	617,834	186,352	328,558	1,132,744
1885	542,562	307,844	212,277	1,062,683

The shipments from Bombay show an increase on the preceding year of 144·5 per cent., those from Kurrachee 53·6 per cent., and from Calcutta of 236·9 per cent. The share of these three ports in the trade in the past two years and in 1886 has been as under:—

—	1891.	1890.	1886.
	Per Cent.	Per Cent.	Per Cent.
Bombay - - -	47·6	40·6	54·5
Kurrachee - -	36·7	49·7	15·7
Calcutta - - -	15·7	9·7	29·8

Three years ago Kurrachee took the lead, and in the following year she increased it, thanks to the large crops in the Punjab, from whence she draws the bulk of her supplies. Last year the crop in the Punjab, the largest wheat-producing province in India, was a bumper one, and as the demand from Europe was more than usual, the exports from the chief port of Sind were far in excess of any previous year, and exceeded half a million tons. But she was, nevertheless, unable to maintain her supremacy. With full

crops in the Central Provinces and in the North-West Provinces and Oudh, but under the average in this Presidency, Bombay once again took the lead with a total of close on 666,000 tons, or about 30 per cent. more than from Kurrachee and a larger share by 11 per cent. in the total exports from the country. To the larger crop in the North-West Provinces and Oudh the increased shipments from Calcutta are due, for in Bengal the crop was slightly under the mean; but her future position, as an exporter of wheat, is bound to weaken, rather than improve, on that held by the ports on the western side. In the past seven years on an average 51 per cent. of the shipments have been despatched to Great Britain and 49 to the Continent, but last year only 41 per cent. went to United Kingdom ports and 59 to the rest of Europe. Of the shipments from Bombay in 1891 the Continent received 63 per cent., from Kurrachee nearly as much, viz., 61 per cent., but from Calcutta only 41 per cent. went. The crop now growing promises well in the Punjab and North-West Provinces, in both of which the area was recently estimated as larger than last year: in the former at about one, and in the latter at four per cent. more, or about 10¾ and 11 per cent., respectively, in excess of the normal area. In the Central Provinces and in this Presidency the estimates when completed are expected to fall short of both last year and the average, owing to the season being unfavourable for the later sowings, but in Berar the area is returned at over two per cent. more than last year's.

Working of the Indian Merchandise Marks Act.

The Calcutta *Engishman* for the 3rd February says that, on the whole, the Indian Merchandise Marks Act appears to have worked fairly well during the year following its adoption. The returns for 1890–91, show about 1,100 cases of detention under the Act, of which nearly 60 per cent. came under the sub-section which requires all piece-goods to be stamped with their length. Less than one-third of the cases of detention occurred in Calcutta, nearly two-thirds in Bombay. Of the 300 cases in Calcutta, about 250 consisted of unstamped or partially stamped piece-goods, 16 were false trade descriptions, and over 30 were goods, marked with the name of a British or British Indian trader, made abroad and not showing the country of manufacture. As a general rule, importers of piece-goods, which figure most largely in the list of imports, appear to have complied with the requirements of the Act; and since the cases in which goods were not stamped the mere obligation to make good the omission involves in itself considerable trouble and expense, the Collector of Customs reports that he has not, as a rule, thought it advisable to impose heavy penalties. In the 16 cases of false trade description, the goods comprised champagne, brandy, port,

vermouth, sherry, butter, vermilion, soap, imitation gold thread, perfumery, porter, and cigars. In some of these cases, re-shipment was allowed, in others the goods were passed after the false definitions had been obliterated and replaced by a correct description.

Indian Salt Production and Revenue.

The following statistics of Indian salt production and revenue are taken from a report compiled by the Indian Government and forwarded to the Board of Trade by the India Office :—

The total quantity of salt produced in India in 1890 was a little over 28½ millions of maunds. This quantity was supplemented by 10,790,319 maunds of imported salt, the total quantity produced and imported amounting to 39,440,209 maunds, more than two-thirds of the whole being produced in India. Importation is practically limited to salt brought to Bengal and Burma from England, Germany, other countries in Europe, Aden, Muscat, Yeddah, and a few other places, and there is also a trifling trans-Himalayan import. The localities where salt is manufactured, together with the quantities produced in 1890, are these:—Northern India:—Sambhar, 6,276,427 maunds; Punjab mines and Kohát, 2,891,458 maunds; Rajputana, sources other than Sambhar, 932,456 maunds, Mandi, Sultanpur, Gwalior, and the saltpetre refineries, 396,023. Total for Northern India, 10,496,364. Bombay :—Coast and Run of Kutch, 8,940,278; Sind (Moach), 218,363. Madras:—East Coast, 8,732,254. Bengal:—Orissa chiefly, 62,755. Burma :—Coast and some brine wells in Upper Burma, 199,876.

In 1890–91, 33,280,639 maunds of salt paid duty, the duty realised amounting (exclusive of miscellaneous receipts) to Rx. 7,981,128, the quantity being ·71 per cent. and the duty ·76 per cent. more than in the previous year. In 1868–69, the first year for which the returns are given in their present form, the quantity of salt excised amounted to 22,733,359 maunds, and the revenue to Rx. 5,464,064. The quantity of which entered into consumption, therefore, increased between 1868–69 and 1890–91 by 46·4 per cent., being at an average rate of 2 per cent. yearly, while the revenue has risen in the same ratio, 46 per cent. During this period the duty was gradually reduced in Bengal and Northern India from Rs. 3·4 and Rs. 3 a maund respectively, to Rs. 2, the rate fixed in March 1882. The duty in Madras and Bombay was raised from Rs. 1·13 to Rs. 2·8 in 1877, then reduced to Rs. 2 in March 1882. The duty was raised for all India to Rs. 2·8 from 19th January 1888, and on the same date the duty in Burma was raised from three annas to one rupee (16 annas) a maund.

Cotton Mills in British India.

The following is a summary of statistics compiled by the Indian Government on the subject of cotton mills in British India:—

There were 125 cotton mills at work in India in 1890–91, containing 23,855 looms and 3,197,700 spindles. They employed a daily average number of 112,143 persons, of whom, as far as details have been obtained, there were 66,092 men, 22,106 women, 18,709 young persons, and 4,236 children. The nominal capital of the mills worked by joint stock proprietary is returned at 109 million rupees: but there is no return of the capital of nine mills worked by private proprietary, and probably the whole capital invested in this industry is quite 118 million rupees, or (in conventional exchange of 10 rupees to the pound) 12 millions sterling.

Of the 125 mills, there were 89 in the Bombay Presidency, of which 65 are in the town island of Bombay. There were eight mills in Bengal, all in the vicinity of Calcutta; eight in Madras, of which four are in the town of Madras; five in the North-Western Provinces, all but one at Cawnpore; two in the Punjab (at Delhi); one at Indore; three in the Central Provinces; three in Hyderabad (Nizam's territory); one in Berar; two in Mysore; two in the French settlement of Pondicherry; and one in Travancore.

The following figures show the progress made in the construction and extension of mills in the last 13 years:—Number of mills 1878–79, 58; 1890–91, 125; number of looms, 12,983 and 23,855; number of spindles, 1,436,464 and 3,197,700; number of persons employed (not stated for 1878–79) and 112,143 in 1890–91.

The industry dates from 1851, when the first mill was started.

Jute and Hemp Mills in British India.

The following particulars respecting the jute and hemp mills of British India are taken from the latest official returns forwarded to the Board of Trade by the India Office:—

There were 25 mills working jute and one mill working hemp at the end of 1890–91, employing a daily average number of 61,915 persons, namely 37,970 men, 12,472 women, 5,439 young persons, and 4,993 children, besides 1,041 persons undistinguished as to sex and age. The mills contained 8,101 looms and 161,845 spindles. The nominal capital of the mills worked by joint stock companies is stated in the returns at 31⅓ million rupees (3,132,000*l.*, at the conventional exchange of 10 rupees to the pound); but the figures are not complete, for some of the mills no returns of capital have been furnished. Probably about 3½ or 4 million rupees may be added to the total on account of these.

All but two of these mills are in Bengal, most of them in the vicinity of Calcutta. Of the two not in Bengal, one (a small one) is at Vizagapatam and the other at Cawnpore, where it commenced work during the year 1886.

The progress of the industry during the last 10 years is shown by the following figures:—Number of mills 1881–82, 21; 1890–91, 26; number of looms, 5,655 and 8,101; number of spindles, 90,755 and 161,845; number of persons employed, 40,551 and 61,915.

Railway Development in India.

Communications have been received from the Public Works Department of the Government of India, intimating that the following branches of railway have recently been opened in India:—

The Nagaur-Bikanir section of the Jodhpore-Bikanir Railway, a distance of 68 miles, opened for public traffic on the 9th December 1891.

The Bairagnia branch of the Tirhoot State Railway from Sitamarhi to Dhang, a distance of 14·5 miles, opened for passenger traffic on and from the 2nd November.

The Pakala Voyalpad section of the Villupuram-Guntakal State Railway, opened for public traffic on the 1st January 1892.

Mysore State Railway extension from Mysore to Nanjangode, a distance of 15¼ miles, opened for public traffic on the 1st December 1891.

The Trade of Canada.

The *Canadian Gazette* for the 25th February writes as follows:—

The detailed trade and navigation returns for the fiscal year 1890–91, of which preliminary details have been published at Ottawa, make very satisfactory reading in Canada, and are not without their interest in British circles. Some critics here and in the Dominion have urged us to believe that the McKinley tariff, with its penalising of a large part of the export trade of Ontario and the Maritime Provinces, must strike a deadly blow at Canada's export trade. It has no doubt had a blighting effect on the outlet which agricultural products formerly found in the United States, but despite this fact the aggregate trade of the year is practically equal to that of the preceding year. The figures are 218,607,390 dols. for 1889–90, and 218,384,934 dols. for 1890–91. It has of course to be remembered that the period under review includes three months under the old United States tariff, and that the rush of Canadian products across the line

during these three months in order to escape the higher duties was abnormally large; but, allowing for this, the fact that the figures of 1889-90—practically the high-water mark of Canadian trade—were maintained, affords ground for satisfaction.

When we come to examine the exports it is clear that the year was one of marked expansion, especially in the trade in agricultural products and in animals.

And when these items are examined in detail, it is seen that the expansion took place for the most part in the supply of British markets. Thus Great Britain increased the value of her consumption of Canadian cheese during the year from 9,347,731 dols. to 9,481,373 dols.; of Canadian butter from 184,145 dols. to 440,060 dols,; of Canadian apples from 835,545 dols. to 1,235,247 dols.; of Canadian cattle from 6,565,315 dols. to 8,425,396 dols.; of peas from 1,286,045 dols. to 1,485,348 dols.; of wheat from 379,893 dols. to 969,134 dols. These are of course products that Canada has long sent to British markets, but the expansion happily extends to those exports which formerly found their chief purchasers in the United States. Thus the exports of Canadian horses to Great Britain grew in value from 17,925 dols. to 156,254 dols.; the value of eggs sent to Great Britain from 820 dols. to 83,589 dols.; the value of barley from 12,017 dols. to 75,225 dols. The canned meats sent in 1890 were of the value of 107,817 dols.; in 1891, 267,959 dols. The export of poultry increased from 1,623 dols. to 5,828 dols. Even hay exports show an increase from 109,634 dols. to 150,291 dols. The exports of agricultural products to Great Britain increased in fact from 3,661,826 dols. to 5,254,028 dols., and the exports of animals and their produce from 18,578,972 dols. to 20,991,143 dols. An expansion on a smaller scale is also to be noted in British purchases of Canadian mineral products, the value of which rose from 630,815 dols. to 851,794 dols.; of the product of Canadian fisheries from 2,707,422 dols. to 2,747,882 dols.; and of Canadian manufactures from 1,816,147 dols. to 2,252,295 dols. The only unsatisfactory item is the export of forest products to Great Britain, which fell from 14,098,865 dols. to 11,146,282 dols., but even this decline leaves the value of the total export to Great Britain at 43,243,784 dols., as against 41,499,149 dols. Including other parts of the Empire, it is seen that Canada's export and import trade stood thus:—

——	Exports to.	Imports from.
	Dols.	Dols.
British countries - - - -	53,357,865	44,483,088
Foreign countries - - - -	45,059,431	68,862,036

Canada as a Food Producer.

The *Canadian Gazette* of February says, that some startling figures are given in a recent issue of an American paper, which devotes a long article to showing that the food products of the United States are likely soon to become insufficient to provide for home consumption. The official statistics show that it requires the product of nearly three acres to support each head of population in the United States. In 1880, with a population of 50,200,000, a cultivated area of 148,600,000 was required, while the acreage so employed was 165,000,000, leaving an exportable surplus from 16,400,000 acres. The development increased during the next five years so that the surplus was 32,000,000 acres, but the highest point was then reached, and since then the population has been increasing more rapidly than the development of the cultivated area, and "it seems wholly probable that the day is not far distant "when domestic consumption will have quite overtaken pro- "duction." The available area for cultivation, including that which may be irrigated from existing water supplies, is stated not to exceed 100,000,000 acres, "unless lands of very low fertility should be included," and of this "probably not more than 35,000,000 acres can be brought under the plough."

Assuming these figures to be correct, then, at the present rate of increase in the population and the requirements of the people, it is estimated that in seven years the surplus for export will be exhausted.

If this be so there must, of necessity, be a large and continually increasing demand for the valuable food-producing lands in Canada. Not only must the development in cultivation and population be rapid, but the produce must enormously increase the wealth of the people, and Canadian railways will reap both the harvest which the railways of the United States now enjoy, in bringing the surplus products to the seaboard for exportation (the loss of which must, in such an event, prove a serious item to the latter), and the increasing prosperity which increased production will bring. There need be no fear for many and many a year to come that there will be no surplus to export from Canada.

The Salmon Pack in British Columbia.

The *Monetary Times* of Toronto says that the pack of 1891 was smaller than that of either of the two previous years, the quantity packed in 1890 having been 409,464 cases, that of 1889 was 414,294 cases, while that of 1891 was about 320,000 cases. Returns of the salmon pack for 1891 have been obtained from the various canneries, but there are still one or two canneries to hear from. The return, so far, gives 312,197 cases from 36 canneries, ranging in output from 200 cases to the large product of 25,000 cases from Ewan's cannery on the Fraser. Twenty-one

of the canneries, turning out 178,770 cases, are on the Fraser River, one on Alert Bay, one on Lowe Inlet, three on Rivers Inlet, seven on Skeena River, turning out 77,000 cases. Three on Naas River. Fourteen of the canneries have packed over 10,000 cases each.

Expansion of the Dairying Industry in Victoria.

To what extent the agricultural resources of the colony of Victoria, says a correspondent of the Perth *Western Mail*, may yet develop it is simply impossible to foretell. Three years ago, when the proposal to make experiments in the exportation of butter to England was first mooted, the suggestion was ridiculed, many of the dairymen themselves doubting the practicability of the scheme. The more practical thinkers, however, recognised that as the production of dairy produce had long since overtaken the demands of local consumption, some outside market would have to be found for our surplus butter, otherwise the industry, through over-production, would speedily languish. In the spring of 1889, thanks to the bonus system introduced by the Gillies Government, the farmers were induced to come forward with small consignments of butter, with which to test the English market. The result exceeded their most sanguine anticipations. Victorian butter caught right on with the British consumer. The universial verdict in London was "Give us as much butter of this quality as you can make. We can find buyers for the whole of it." This news spread swiftly through the whole colony. At the very time of year when this article was almost unsaleable in Melbourne it was being eagerly sought for in London at 1*s.* per lb. The outlet having been discovered, a revival in dairying enterprise was the natural outcome. The wonderful expansion of the industry, however, which followed has surprised everybody. In 1889 400 tons of butter were exported. In 1890 the consignments reached close upon 900, and the export of butter in 1891 is estimated at 2,000 tons. At an average price of 1*s.* per lb., the value of this exported butter will reach nearly a quarter of a million of money. Should the trade continue to develop in anything like the same ratio during the next three years, the dairying industry will take rank as one of the principal export businesses in the colony. There is no reason why it should not. Great Britain annually imports butter to the value of 10,000,000*l.* sterling. Butter at 1*s.* per lb. returns a handsome profit to the Victorian producer. Instead, therefore, of exporting 2,000 tons, it is reasonable to look forward to a time not far distant when the colony will send to the mother country from 8,000 to 10,000 tons of butter per annum. The capabilities of the soil and climate can hardly be over-estimated, and as the market for Victorian dairy products is practically unlimited, it may be fairly claimed that this rapidly growing industry will very soon add enormously to the producing wealth of the colony.

Operating Facilities for Victorian Telegraphic Business.

The *Australasian Manufacturer* describes a simple and effective contrivance which has been recently designed and adopted at the General Post Office, Melbourne, for the transmission of telegrams from the receiving to the operating room, which is about 30 ft. away and three storeys high. The apparatus consists of a continuous thin wire rope, belt, or cable, travelling over two vertical pulleys, one on the upper floor, and the other—which imparts the motion—on the ground floor. At equal distances on the belt are secured cleats with universal joints, to which the brass cylinders or receptacles for holding the telegrams are hung, and by the motion of the cable conveyed to the operating rooms, and the empties returned to the receiving room. On arrival at either pulley the buckets are automatically released, and fall into a net, when boys hand the contents to the operator. Boys are also engaged to hook on the buckets or cylinders for either journey. The machine is driven by a small half horse-power motor, but is constructed so that it may be driven by manual labour if necessary. The apparatus saves a great deal of time and expense, as a staff of boys were kept running up stairs with messages for transmission before its introduction. It will also serve the purpose of the pneumatic tubes that the department contemplated laying, which would have been four times as expensive and cost double the amount for working expenses, &c.

Railway Traffic Earnings in New South Wales.

In a communication to the Board of Trade, dated the 23rd February, the Secretary to the New South Wales Government agency forwards a statement of the railway and tramway revenue of New South Wales for the month of November last, and the eleven months ended the 30th November.

According to this statement, the earnings of the New South Wales railways in November last amounted to 316,677*l.* as against 309,350*l.* for the corresponding month in 1890. In the eleven months the aggregate earnings were 2,763,100*l.* as compared with 2,430,563*l.* in 1890. The length of railway line open at the end of November 1891 was 2,182 miles, being the same as in November 1890.

As regards the tramways the receipts for November amounted to 23,055*l.*, as compared with 23,000*l.* for the corresponding month in 1890. The aggregate receipts for the 11 months ended November were 272,890*l.* against 248,921*l.* at the same period in 1890. Length of line open in November 1891, 46 miles; in 1890, 39½ miles.

The Cultivation of the Date Palm in South Australia.

For some years past, says the *South Australian Advertiser* of 5th January, the Government has been endeavouring to grow the date palm in the far north, but so far it has been unfortunate in the sorts planted. At the instance of Mr. G. W. Cotton, inquiries were recently made through the British Government of the French authorities in Algeria as to what kind of palm could be recommended to grow in the arid districts of the interior. A report was obtained from M. Charles Rivière, director of the Jardin d'Essai du Hamma, near Algiers, in which he proposed to send out to Adelaide a number of layers of the deglet-nour palm cultivated in pots and arranged in portable green houses. M. Rivière recommends that two or three trained Europeans should accompany the plants, which in the early stages require great care, and promises to send full instructions as to their cultivation and treatment.

The Yilgarn Gold-field of Western Australia.

Writing on the subject of the prospects of the Yilgarn gold-field in Western Australia, the Perth *Western Mail* for January 9th says:—

All doubts as to the existence of an extensive and rich reefing field at Yilgarn have been long since removed. Only eight mines are working as yet, owing to the difficulties and delays involved in getting machinary to the field, but this number will be at least doubled during the present year, whilst the number of mines paying dividends during 1891 should be similarly increased in the course of 1892. The eight mines have between them milled 12,931 tons of ore, Fraser's heading the list with 3,804 tons and Central's coming next and closely with 3,535, the stone crushed at the other mines being as follows:—Hope's Hill, 1,898; MacIntosh's, 1,725; Fraser's South, 1,716; Exchange, 103; and No. 1 Central Extended, 60. Fraser's mine is now working with 20 head of stampers, and is paying a regular dividend, whilst the Central, which at present has 10 head working, will soon have added another 15, and should then be in a position to recommence those dividends, which were ceased for a while in order to enable the company to add to their machinery. The other mines, with the exception of the Exchange, which is equipped with a Huntingdon mill, have each 10 head of stampers. The average yield is remarkably satisfactory, amounting to about 23 dwts. 1 grain to the ton; each mine, moreover, fluctuating but little in regard to its own average. When for the space or one year eight mines, two of which have been in constant work for the entire period, can show an average of 1 oz. 3 dwts. to the ton, and this admittedly

with imperfect gold-saving appliances, there are, with justice, the highest hopes for the prospects of the field. The total yield of gold from the field for the years was 14,230 ozs. 6 dwts. 21 grs., which, valued at 75*s.* per ounce, amounts to the highly respectable figure of 53,356*l.* 1*s.*

Revenue Returns of Cape Colony.

A communication, dated the 16th February, has been received from the Agent-General for the Cape of Good Hope, enclosing copies of comparative statements, from which it appears that the revenue received in the month of December last amounted to 344,074*l.*, being a net increase of 24,306*l.* over the amount for the corresponding month of 1890. For the six months ended December 1891 the revenue was 2,147,198*l.*, the net increase over the amount for the corresponding period of 1890 being 135,403*l.*

Railway Traffic Earnings in Cape Colony.

A communication, dated the 2nd March, has been received from the Agent-General for the Cape of Good Hope, transmitting copy of a comparative statement, from which it appears that the traffic earnings on Cape Government railways during the month of December last amounted to 171,844*l.*, as compared with 143,523*l.* for the corresponding month of 1890. The total traffic earnings for the year 1892 is given at 1,896,376*l.*, as against 1,896,545*l.* for the previous twelve months.

XIX.—PROCEEDINGS AND DELIBERATIONS OF CHAMBERS OF COMMERCE OF THE UNITED KINGDOM.

Belfast.—The annual meeting of the Belfast Chamber of Commerce was held on the 18th February, the president, Mr. W. C. Mitchell, J.P., in the chair. After the presentation of the report, an address was delivered by the outgoing president.

Birmingham.—The monthly meeting of the Birmingham Chamber of Commerce was held on the 17th February, Mr. J. W. Tonks presiding. It was resolved "that a memorial be addressed "by the council to Her Majesty's Government urging the intro- "duction of a bill for the granting of an annual subsidy for "guaranteeing interest upon an estimated capital of 2,000,000*l.* "required for the construction of a railway from Mombasa "harbour on the East Coast of Africa to the Victoria Nyanza." It was moved by the chairman, and unanimously resolved, "That a communication be addressed to the Secretary of State "for the Colonies urging him to instruct her Majesty's governors

" and representatives in West Africa to despatch Commissioners " to negotiate treaties with the African potentates ruling the " Hinterlands, or to obtain guarantees that their dominions shall " not be placed under the exclusive protection of any but the " British Imperial rule, or otherwise to secure the Hinterlands."

The attention of the council was directed to an arrangement recently concluded between her Majesty's Government and the Government of the United States of America for reciprocal trade between the United States of America and certain West Indian colonies, particulars of which the secretary had obtained from the Colonial Office.

Blackburn.—The annual meeting of the Blackburn Chamber of Commerce was held on the 17th February, Alderman Henry Harrison, J.P., president, in the chair. Addresses were delivered by the president on the trade of the borough, and by Mr. Jephson on the development of Africa.

Bradford.—A meeting of the council of the Bradford Chamber of Commerce was held on the 24th February, under the presidency of Mr. J. Gordon.

From the Foreign Office a letter had been received (in reply to an inquiry by the Chamber) stating that, in order to secure the benefits of the Franco-Spanish treaty, from February 1st to June 30th, as regards mixed cotton and woollen goods, it is essential that the warp in such goods be wholly of cotton. In regard to the Italian tariff also, a letter had been received from the Foreign Office on the subject of alterations in the rates of duty on mixed cotton and woollen goods. It stated that mixed tissues of cotton and wool are included in the existing Italian general tariff under the category of "Cotton." In the existing general tariff, mixed tissues (wool and cotton) pay the duty on cotton tissues, with an additional 20 francs per 100 kilogrammes. It is proposed in the amendment before the Chamber to raise this surtax from 20 to 40 francs per 100 kilogrammes—that is to say, an addition of 20 francs (and not of 25 francs, as asserted in the note from the Chamber of Commerce). As the measure is one of deliberate protection, and not introduced on account of fiscal considerations, nothing could be gained by a direct official representation of the views of the Bradford Chamber of Commerce to the Italian Government; and an unofficial inquiry at the Ministry of Finance has confirmed the view that there is no prospect of the Government modifying a decision which has been come to not only in response to the claims of the Italian weavers, but partly also as a set-off to the considerable reductions conceded under the new conventional tariff in the duties on carded wool tissues.

A letter had been received from the Imperial British East Africa Company asking the Chamber to reconsider the decision against memorialising the Government in support of a guarantee for the railway from Mombasa to Lake Victoria Nyanza. The President pointed out the importance of the question to trading communities, and as a means of breaking up the slave traffic.

Bristol.—The monthly meeting of the Council of this Chamber was held on the 24th February, Mr. John Weston in the chair. A letter was read from the National Society for the Exemption of Machinery from Rating requesting the support of the Chamber to the bill as amended at the recent conference in Manchester. Upon the motion of Mr. J. H. Howell, it was resolved that the Chamber should support the bill in its passage through Parliament.

The attention of the council of the Bristol Chamber of Commerce having been directed by the Liverpool Chamber to the importance of impressing upon all companies the desirability of availing themselves of the powers bestowed upon them by the Forged Transfer Act of 1891, they are of opinion that the action taken by the Liverpool Chamber of Commerce in this matter is one worthy of support, and this Chamber will do all in their power to further the adoption of the Act among those companies connected with the city and district.

With reference to trade prospects in Central Africa, it was resolved in compliance with a wish expressed at the meeting of members of the Chamber on the 22nd February to present a memorial to the Marquis of Salisbury on behalf of the Chamber.

Dublin.—A meeting of the council of the Dublin Chamber of Commerce was held on the 14th February, Mr. Edmond F. Figgis in the chair. A letter from the Belfast Chamber of Commerce was read, and a recommendation contained in it that Sir E. J. Harland, Bart., M.P., should be a representative for Ireland on the Committee of Lloyd's Register was adopted.

A letter from the secretary of the Dublin, Wicklow, and Wexford Railway Company announcing the opening of the city of Dublin Junction Railway, No. 2, for traffic was read, so that passengers and mails for America can now proceed direct, without change of carriage, from Kingstown to Queenstown.

A deputation was appointed to wait upon the Post Office Department to urge the Government to make use of their railway without any delay.

Halifax.—A meeting of the council of the Halifax Chamber of Commerce was held on the 24th February, Mr. J. Booth, president, in the chair. A circular and a letter were read on the Rating of Machinery Bill, and the president said the Halifax Chamber had already impressed upon the district members of Parliament, the great importance of the measure. He suggested, however, that a further communication should be sent to the members urging them to attend to the bill. Other subjects under discussion comprised Boards of Conciliation and a proposal to invite Captain Jephson to deliver a lecture before the Halifax Chamber on "Trade to Ugunda."

Keighley.—The annual meeting of the Keighley and District Chamber of Commerce was held on the 15th February, Mr. J. C. Horsfall in the chair.

In their sixth annual report, presented by the secretary, the committee expressed their regret that the various trades of the district had during the year suffered from depression. Several reasons might be assigned for that, but the most important was, without doubt, the McKinley Bill adopted by the United States, which came into operation three months before the commencement of the year. When it was remembered that the district had in past years contributed very largely to the volume of trade going to America, it would not be difficult to understand the serious effect that necessarily followed the passing of the bill, nor would it lessen the regret that thereby was created another barrier, they trusted only temporary, to the development of the trade of the district. The report proceeded to give a *résumé* of the work of the council during the year, some of the more important points being dealt with at length.

Leeds.—The monthly meeting of the Leeds Chamber of Commerce was held on the 24th February—Mr. W. Beckworth in the chair.

The minutes of the Foreign Trade and Tariffs Committee showed that Mr. Whitehead pointed out that after the 1st May next certificates of origin must be sent with all goods despatched to Brazil, and it was decided to recommend the council to ask the Foreign Office to obtain the appointment of a Brazilian Vice-Consul for Leeds and district.

Mr. Whitehead said the nearest Consul to Leeds was at Liverpool, and as all invoices had to be legalised, it must be obvious that there must be a delay of two or three days in sending to Liverpool. The fee for legalising an invoice was 11*s.* 3*d.* He moved the approval of the recommendation.

Mr. Zossenheim seconded the resolution, which was agreed to.

The minutes of the Foreign Trade and Tariffs Committee stated that the chairman reported that he had brought forward, before the Treaties Committee of the Board of Trade, the question of the increase on the 1st February in the duties on linen yarns sent from this country to Spain, and that in consequence of the action of the committee instructions had been given by the Spanish Government for all British goods to receive most-favoured-nation treatment, by means of which linen yarns would be admitted until the 1st July next at the old rates.

Mr. Whitehead, who is President of the Textile Society of the Yorkshire College, said that for some time past they had been discussing the desirability of establishing a textile museum in Leeds, similar to those at Lyons and other towns on the Continent. Professor Beaumont had prepared a scheme, which was published some time ago, and the Textile Society would be obliged if the council would allow Professor Beaumont to attend and explain the whole of his project.

Mr. Bousfield said the matter was under the consideration of the council of the Yorkshire College. It was very largely a matter of pounds, shillings, and pence. It was thought that such a

museum would be very valuable, not only to students at the Yorkshire College, but to the district and the town generally, and members of the trade.

On the motion of the ex-president, seconded by Mr. Zossenheim, the question was referred to the Foreign Trade and Tariffs Committee, to arrange for Professor Beaumont to have an interview with the council.

Liverpool.—A special meeting of the council of the Liverpool Chamber of Commerce was held on the 25th February, Mr. C. McArthur in the chair. The following resolution was moved with reference to lighthouse communication.

Mr. F. Henderson moved—"That, in the opinion of this "Chamber, the time has now arrived when it is absolutely "necessary for the better protection of life and property in "the case of shipwrecks on the coasts:—1. That there should "be constructed and maintained by the Government a special "line of coast telegraphs connecting together all the coastguard "stations in the United Kingdom with branch lines to all light-"houses and lightships. 2. That such coast lines of telegraph "should be connected with the postal telegraph system of this "country, and be available for use at any time, night or day. "3. That the secretary be requested to draw up a memorial to "the Government department having charge of the matter "embodying the views of the Chamber, and that Mr. Royden or "one of the other members of Parliament for the city be "informed of the presentation, and asked to support the "memorial." Mr. Henderson said successive Governments had hitherto shelved the question on account of the expenditure involved, as it was not an expense that could be thrown upon the commerce of the kingdom. During the last winter, however, numerous occasions had arisen on which great loss of life and property might have been avoided if these telegraph stations had been in existence. Various public bodies were petitioning the Government, and he understood that the Admiralty and the Board of Trade had at last shown a willingness to meet the views of the commercial community if only sufficient pressure were put upon them to enable them to have good reason to make the proposal. It was specially needful to have the telegraph stations open all night, as very often they are connected with village post-offices, which worked from 8 a.m. to 8 p.m., and were then closed at the time they were most wanted.

Mr. Thorburn, in seconding the resolution, said the Government departments concerned were most anxious to carry the matter out, and only wanted a strong recommendation from the commercial bodies to give them sufficient reason to go into the expense. If there was any port in the United Kingdom in which such a resolution should be adopted it was Liverpool.

Mr. T. H. Hughes said that he should support the resolution, not only on its commercial and humanitarian grounds, but also because the adoption of such a system would add very materially to the defence of the country.

The resolution was then unanimously adopted, and this concluded the proceedings.

Among other subjects under consideration were the following:—The Forged Transfers Act, Railway Rates, and the report of the West African Section of the Chamber.

A special meeting of the Incorporated Chamber was held on the 4th March for discussion on the proposal of the Chancellor of the Exchequer on the issue of 1*l.* notes, when it was moved as an amendment of the original resolution that "this Chamber is of "opinion that it is desirable Mr. Goschen should bring his "suggestions before Parliament in the shape of a bill." This amendment was carried.

North Staffordshire.—The monthly meeting of the North Staffordshire Chamber of Commerce was held on the 17th February, Mr. W. M. Edge, president, in the chair.

The clerk (Mr. A. P. Llewellyn) read a communication from the Imperial British East Africa Company, asking the Chamber to support a memorial to the Government to introduce a bill next session for the granting of an annual subsidy for guaranteeing interest upon an estimated capital of two millions required for the construction of a single-track railway from Mombasa, the finest harbour on the East Coast of Africa, to Victoria Nyanza. Such a project, it was pointed out, would effect the double object of finally extinguishing the slave trade, and the opening up of an extensive field for the introduction of trade.

Mr. Lester suggested that they should sign the memorial, pointing out that the Indian Government guaranteed certain Indian railways.

Mr. James Heath said if they supported the memorial he did not think for one moment the Government would entertain it. The subject of Indian railways was a different matter altogether.

After a slight discussion, the clerk was instructed to ascertain what steps other Chambers were taking in the matter, and obtain further information.

Among other subjects under discussion were those relating to railway rates, the obtaining of samples of foreign manufacture, and the annual meeting of the Associated Chambers of Commerce.

Sheffield.—A meeting of the council of the Sheffield Chamber of Commerce was held on the 26th February, Alderman W. H. Brittain in the chair.

A circular of the Associated Chambers of Commerce was read, from which it appeared that the Rating of Machinery Bill, as considered at the Manchester Conference, had been introduced in the House of Commons by Mr. Gerald Balfour, M.P., and the second reading had been fixed for the 6th April.

It also stated that Sir E. Birkbeck, M.P., had given notice of a motion in the House to provide for telegraphic or telephonic communication with lighthouses, lifeboat, and rocket apparatus stations, in order to avoid lamentable loss of life.

Among other subjects under consideration were the meeting of the Trade and Treaties Committee, the Forged Transfers Act, and commercial education.

Wakefield. — A meeting of the council of the Wakefield Chamber of Commerce was held on the 9th February, Mr. J. Haslegrave in the chair.

An application was made for a subscription to the Association on the Rating of Machinery. The Chamber was requested to ask the local representatives in Parliament to vote in the ballot for a day for the re-introduction of the Bill. The amended Bill of the Society was read, and on the motion of Colonel Mackie, seconded by Major Bolton, it was decided to ask the representatives of Wakefield and the Normanton Division to support the naming of a day for the Bill, which got to the committee stage in the last session. The Chicago Exhibition asked for specimens of coal or metals to illustrate our local industries, and the meeting decided to do what it could in the matter. The South African Exhibition will be opened at Kimberley in September. The question of increasing the cash reserve at the Bank of England was considered, but the meeting was not prepared to say how it was to be done.

Walsall.—A meeting of the Walsall Chamber of Commerce was held on the 29th February, Mr. J. Scott in the chair. The subjects under discussion comprised the composition of committees, additional advantages to members, the meeting of the Associated Chambers of Commerce, and the metallic reserve.

XX.—RECENT TRADE BLUE BOOKS.

1. *Agricultural Statistics, Ireland. Tables showing the Extent in Statute Acres and the Produce of the Crops for the Year* 1891, *with Observations of the District Inspectors of the Royal Irish Constabulary and of the Sergeants of the Metropolitan Police who acted as Superintendents of the Agricultural Statistics; together with Tables showing the Average Yearly Extent under the Principal Crops and the Average Produce thereof in the Ten Years* 1881–90; *also Bee-keeping Statistics for the Season* 1890. (*C.*—6517.) *Price* 3½*d.*

This is the annual report of the Registrar-General for Ireland, and is issued in anticipation of the more detailed report on the agricultural statistics of the country.

The Registrar states that the acreage under crops in 1891, compared with 1890, shows a decrease in all the principal cereal crops, there having been a decrease of 11,471 acres in wheat, 5,617 acres in oats, 4,092 acres in barley, 1,130 acres in rye, and 26 acres in bere. In green crops potatoes decreased by 27,469 acres, but there is an increase of 4,940 acres in turnips and of 5,300 acres in mangel wurzel. In other crops, flax decreased by 22,231 acres; meadows on clover, sainfoin, and grasses under rotation, decreased by 36,209 acres; and meadow on permanent pasture or grass not broken up in rotation, increased by 2,104 acres. Compared with the average acreage for the ten years 1881–90, there is a decrease in all the chief crops except rye, turnips, and mangel wurzel; rye increased by 3,062 acres, turnips by 1,918 acres, and mangel wurzel by 11,138 acres. Wheat shows a decrease of 14,939 acres, oats a decrease of 107,374 acres, and barley a decrease of 2,971 acres. Potatoes have decreased by 53,199 acres, flax by 38,963 acres, and hay by 3,809 acres.

The yield per acre of cereal crops in 1891, compared with 1890, exhibits an increase in wheat of 2·0 cwts., in oats of 0·9 cwt., in barley of 1·8 cwt., and in rye of 2·0 cwts., while there is a decrease in bere of 0·1 cwt. In other crops, potatoes show an increase of 1·7 tons; turnips an increase of 0·1 ton; and mangel wurzel an increase of 1·3 tons; while there is a decrease in flax of 3·9 stones. Hay on clover, sainfoin, and grasses under rotation shows the same rate in both years, but in hay on permanent pasture or grass not broken up in rotation there is a decrease of 0·1 ton. The rates for 1891, compared with the average rates for the ten years 1881–90, show for cereal crops an increase in wheat of 2·7 cwts., in oats of 1·9 cwts., in barley of 3·0 cwts., and in rye of 1·7 cwts., with a decrease in bere of 0·3 cwt. In other crops there is an increase in potatoes of 0·5 ton, in turnips of 2·2 tons, in mangel wurzel of 2·5 tons, and in flax of 1·0 stone; the rate for hay is the same as the average.

The produce in 1891, as compared with 1890, shows, in cereal crops, a decrease in wheat of 12,837 cwts., an increase in oats of 1,037,264 cwts., and in barley of 253,202 cwts., a decrease in bere of 403 cwts., and an increase in rye of 13,076 cwts. Potatoes show the large increase of 1,226,157 tons; turnips increased by 94,754 tons; and mangel wurzel by 144,123 tons. There is a decrease of 6,438 tons in flax, of 118,801 tons in hay on clover, sainfoin, and grasses under rotation, and of 132,337 tons in hay on permanent pasture or grass not broken up in rotation.

The produce in 1891, as compared with the average produce of the 10 years, 1881–90, shows, in cereal crops, an increase in wheat of 890 cwts.; in oats of 866,421 cwts.; in barley of 479,772 cwts., and in rye of 59,012 cwts., with a decrease in bere of 249 cwts. In other crops in 1891, as compared with the average, there is an increase of 185,192 tons in potatoes, of 674,460 tons in turnips, of 273,701 tons in mangel wurzel, and of 75,054 tons in hay. Flax exhibits a decrease of 6,451 tons.

In the return a tabular statement is given, showing the quantity of honey produced in Ireland in each of the years from 1885 to 1890, distinguishing the quantity produced on hives having movable combs, from that produced on other hives, and run honey from section honey. The total quantity produced in 1890 was 292,116 pounds as compared with 424,588 pounds in the preceding year.

2. *Railway, &c., Bills. Report by the Board of Trade upon all the Railway, Canal, Tramway, Gas, Electric Lighting, Water Bills, and Provisional Orders of Session*, 1892. 5. *Price* 5½*d.*

This annual return contains a statement of the number of Bills of the present session which relate to railways, canals, tramways, &c., and their total proposed capital and length of line. It gives also a statement, showing the number of applications to the Board of Trade for provisional orders under the Tramways Act, the Gas and Water Works Facilities Act, and the Electric Lighting Acts, together with an analysis of the various Bills and an analysis of the applications to the Board of Trade for provisional orders or certificates. Information is also given relating to Bills with provisions for the amalgamation, sale, lease, or transfer of certain railways.

3. *Pauperism* (*England and Wales*). *Return A. Comparative Statement of Pauperism, December* 1891. 130. (*A.—XI.*) *Price* 2*d.*

This return completes the monthly comparative statements of the pauperism of England and Wales for the quarter ended at Christmas 1891. On referring to the tables in the monthly comparative statements for the months of October, November, and December last, showing the number of paupers in receipt of relief on the last day of each week of the corresponding months for the last 35 years, it will be seen that it is almost invariably the rule that, except in the second week of the quarter, the number of paupers

continues to increase week by week during the whole three months. This was the case in the year 1891.

The number of persons (excluding lunatics in asylums and licensed houses, and vagrants) relieved in England and Wales on the last day in each week of December 1891 was as follows:—First week, 664,946; second week, 668,908; third week, 672,886; fourth week, 675,175.

4. *Declaration between the Governments of Great Britain and France for the Execution of the Agreement signed at Paris, May 17th, 1891, and at London, June 16th, 1891, for the Regulation of the Telephonic Service between the two Countries. Commercial, No. 2 (1892) (France).* (*C.*—6553.) *Price* 1*d.*

This agreement was signed in London on the 29th November 1891.

5. *Labour Statistics. Statistical Tables and Report on Trade Unions. Fourth Report. Years* 1889 *and* 1890. (*C.*—6475.) *Price* 5*s.* 1½*d.*

This is the fourth report of Mr. Burnett, the Labour Correspondent of the Board of Trade. In addition to the report itself, tables are given showing the number of members belonging to trades unions for a series of years; also contributions per head of members of trades unions, together with the per-centage of members of trades unions on unemployed, sick, and superannuation benefits, and the amount per head of membership paid by trade unions on unemployed, sick, and superannuation benefits. The return also gives detailed statements relating to each of the trades unions inquired into.

6. *Emigration* (*Colonies*). *Report on the Emigrants' Information Office for the Year ended* 31*st December* 1891. (*C.*—6573.) *Price* 1*d.*

This paper is in continuation of (C.—6277) February 1891, details the work of the Emigrants' Information Office during the year 1891. It states that the most important duty of the office during the year has been in connexion with South America, the destitution and misery among British immigrants to Brazil, and the unsound conditions existing in the Argentine Republic, having given occasion for repeated warnings. The number of letters received in 1891 at the Emigrants' Information Office was 9,226, as against 8,381 in 1890. The number of personal inquiries was 4,561, against 5,065 in the preceding year. Of these personal inquiries, nearly 26 per cent. were made by mechanics, 21 per cent. by general labourers, over 13 per cent. by clerks and shopmen, and 9 per cent. were classed as miscellaneous; the per-centage of inquiries by female domestic servants was rather smaller than in 1890.

XXI.—QUARANTINE NOTICES.

PORTUGAL.—Damaun and other ports in Portuguese India are declared free from cholera from the 1st December last.

AUSTRIA-HUNGARY.—Quarantine on arrivals at Trieste from Arabian ports between Yambo and Babelmandeb is abolished.

GREECE.—Effective quarantine on arrivals from ports between Latakia and Jaffa (both exclusive) is reduced to five days' observation.

Quarantine on arrivals from ports between Latakia and Jaffa has been raised.

TURKEY.—Quarantine is abolished on arrivals from Yemen littoral, from Lith to Babelmandeb, and medical visit substituted.

Quarantine on arrivals from Syrian coast is suppressed. Medical inspection is substituted, except for troop ships and emigrant ships.

Quarantine on arrivals at Beyrout from Syria is abolished.

CYPRUS.—Yemen, south of Lith, is released from quarantine. The *Cyprus Gazette* of the 6th February 1892 states also that the existing prohibition against the landing of passengers who are not domiciled in Cyprus, or who are not coming to the island on Government business, shall be removed.

Syria is released from quarantine, but is still subject to medical inspection.

EGYPT.—Madras is released from quarantine. Quarantine on arrivals in Egypt from Jaffa and the coast between that port and the Egyptian frontier is removed.

Quarantine on arrivals in Egypt from Syria is removed, and medical visit substituted.

ECUADOR.—The Board of Health of Guayaquil has resolved to issue suspected bills of health at this port, stating in those documents that many cases of yellow fever exist here, although it has not yet been declared as epidemic.

BARBADOS. — Yellow fever has broken out on the German barque "Hans," at Barbados, at the conclusion of her voyage from Santos. All necessary precautions to prevent the spread of the disease have been taken.

XXII.—POST OFFICE NOTICES.

Issue of Letter Cards and Embossed Envelopes for Foreign Letters.

Letter cards impressed with a penny postage stamp, and two sizes of envelopes for foreign letters bearing an embossed postage stamp of the value of 2½*d.* are now on sale at every Post Office.

The letter cards are banded in packets of 10 for 1*s.*, and the envelopes (two sizes designated "L" and "M") in packets of 10 for 2*s.* 2½*d.* and 2*s.* 3*d.* respectively.

For less quantities than 10 the prices will be as follows:—

Letter Cards.—1, 1½*d.*; 2, 2½*d.*; 3, 3¾*d.*; 4, 5*d.*; 5, 6*d.*; 6, 7¼*d.*; 7, 8½*d.*; 8, 9¾*d.*; 9, 11*d.*

Envelopes: "L" Size.—1, 2¾*d.*; 2, 5½*d.*; 3, 8*d.*; 4, 10¾*d.*; 5, 1*s.* 1¼*d.*; 6, 1*s.* 4*d.*; 7, 1*s.* 6¾*d.*; 8, 1*s.* 9¼*d.*; 9, 2*s.*

"M" Size.—1, 2¾*d.*; 2, 5½*d.*; 3, 8¼*d.*; 4, 11*d.*; 5, 1*s.* 1½*d.*; 6, 1*s.* 4¼*d.*; 7, 1*s.* 7*d.*; 8, 1*s.* 9¾*d.*; 9, 2*s.* 0½*d.*

The letter cards will be subject to all the regulations affecting letters. Enclosures will not be objected to, but if an enclosure raises the weight of a card above 1 oz., an additional stamp must be affixed, or the packet will be chargeable as an overweight letter.

Parcel Post with the Transvaal (South African Republic).

Parcels are now accepted for transmission to the Transvaal (South African Republic), *vid* Capetown. Parcels for that State have hitherto been accepted for transmission as far as the Cape Colony only, their conveyance thence to destination being at the cost of the addressees. Under the new arrangement, however, the senders of parcels will be able, by prepayment of the postage, to cover the cost of conveyance as far as the place of destination, and the detention of the parcels at Cape Town will be avoided.

XXIII.—STATISTICAL TABLES.

I.—Foreign Trade of the United Kingdom.

Statement of the Imports into and of the Exports from the United Kingdom during the month and two months, ended 29th February 1892, compared with the corresponding periods of the year 1891.

Month ended 29th February.

I. Imports from Foreign Countries and British Possessions.

	Month ended 29th February.		Increase.	Decrease.
	1892.	1891.		
	£	£	£	£
I. Animals living (for food)	580,939	516,787	64,152	—
II. (A.) Articles of food and drink, duty free	11,598,697	9,888,414	1,710,283	—
(B.) Articles of food and drink, dutiable	2,092,645	2,286,582	—	193,937
Tobacco, dutiable	243,896	205,211	37,685	—
III. Metals	1,752,223	1,891,649	—	139,426
IV. Chemicals, dyestuffs, and tanning substances	941,833	864,218	77,615	—
V. Oils	592,953	522,098	70,855	—
VI. Raw materials for textile manufactures	7,648,183	8,227,299	—	579,116
VII. Raw materials for sundry industries and manufactures	2,413,237	2,180,632	232,605	—
VIII. Manufactured articles	5,633,405	5,663,439	—	30,034
IX. (A.) Miscellaneous articles	1,322,575	1,008,787	313,788	—
(B.) Parcel post	57,325	55,218	2,107	—
Total Value	34,877,931	33,314,354	1,560,577	—

II. Exports of British and Irish Produce and Manufactures.

	£	£	£	£
I. Animals, living	35,593	32,954	2,639	—
II. Articles of food and drink	717,213	786,907	—	69,694
III. Raw materials	1,393,332	1,571,827	—	178,495
IV. Articles manufactured and partly manufactured, viz.:—				
(A.) Yarns and textile fabrics	9,256,010	9,703,170	—	447,160
(B.) Metals and articles manufactured therefrom (except machinery)	2,629,389	2,850,721	—	221,332
(C.) Machinery and millwork	1,153,048	1,187,414	—	34,366
(D.) Apparel and articles of personal use	1,007,847	955,351	52,496	—
(E.) Chemicals, and chemical and medicinal preparations	701,022	736,000	—	54,978
(F.) All other articles, either manufactured or partly manufactured	2,349,355	2,539,893	—	190,538
(G.) Parcel post	85,944	86,384	—	440
Total Value	19,328,753	20,470,621	—	1,141,868

III. Exports of Foreign and Colonial Produce.

	£	£	£	£
Total Value	5,728,772	5,962,215	—	133,443

I.—Foreign Trade of the United Kingdom—*cont.*

Two Months ended 29th February.

I. Imports from Foreign Countries and British Possessions.

	Two Months ended 29th February		Increase.	Decrease.
	1892.	*1891.*		
	£	£	£	£
I. Animals, living (for food)	1,151,533	*1,158,226*	—	6,693
II. (A.) Articles of food and drink, duty free	23,162,077	*19,298,326*	3,863,751	—
(B.) Articles of food and drink, dutiable	4,099,460	*4,216,413*	—	116,953
Tobacco, dutiable	527,437	*464,672*	62,765	—
III. Metals	3,574,726	*3,607,516*	—	32,790
IV. Chemicals, dyestuffs, and tanning substances	1,768,919	*1,717,005*	51,914	—
V. Oils	1,159,581	*1,158,532*	1,049	—
VI. Raw materials for textile manufactures	19,535,559	*18,670,675*	864,884	—
VII. Raw materials for sundry industries and manufactures	4,836,301	*4,559,515*	276,786	—
VIII. Manufactured articles	10,669,072	*9,950,073*	718,999	—
IX. (A.) Miscellaneous articles	2,766,755	*2,133,036*	633,699	—
(B.) Parcel post	111,755	*118,427*	—	6,672
Total Value	73,363,175	*67,052,436*	6,310,739	—

II. Exports of British and Irish Produce and Manufactures.

	£	£	£	£
I. Animals, living	60,794	*53,891*	6,903	—
II. Articles of food and drink	1,422,842	*1,513,658*	—	90,816
II. Raw materials	2,728,430	*2,991,526*	—	263,096
IV. Articles manufactured and partly manufactured, viz.:—				
(A.) Yarns and textile fabrics	18,587,980	*18,987,266*	—	399,286
(B.) Metals and articles manufactured therefrom (except machinery)	5,180,855	*5,999,322*	—	818,467
(C.) Machinery and millwork	2,344,399	*2,293,740*	50,659	—
(D.) Apparel and articles of personal use	2,014,855	*1,950,791*	64,064	—
(E.) Chemicals, and chemical and medicinal preparations	1,408,206	*1,466,457*	—	58,251
(F.) All other articles, either manufactured or partly manufactured	4,568,619	*4,888,751*	—	320,132
(G.) Parcel post	158,477	*159,534*	—	1057
Total Value	38,475,457	*40,304,936*	—	1,829,479

III. Exports of Foreign and Colonial Produce.

	£	£	£	£
Total Value	9,857,418	**10,252,017*	—	394,599

* Partly estimated.

II.—Corn Prices.

Return of the Quantities sold and Average Prices of British Corn, Imperial Measure, as received from the Inspectors and Officers of Excise during the under-mentioned periods.

Periods.	Wheat.	Barley.	Oats.
	Quantities sold.		
	Qrs. bus.	Qrs. bus.	Qrs. bus.
Week ended 6th February 1892 -	66,002 0	112,148 5	14,239 2
„ 13th „ „ -	55,131 2	92,285 3	12,911 4
„ 20th „ „ -	59,808 7	85,904 6	13,905 0
„ 27th „ „ -	63,205 0	82,875 4	15,462 0
February 1892 - - -	244,147 1	373,214 2	56,517 6
Corresponding month in 1891 -	*287,764 2*	*330,646 4*	*66,907 5*
„ „ *1890* -	*266,612 6*	*287,216 7*	*64,047 1*
	Average Prices.		
	s. d.	*s. d.*	*s. d.*
Week ended 6th February 1892 -	33 1	28 7	20 2
„ 13th „ „ -	32 3	28 5	19 8
„ 20th „ „ -	32 1	28 0	20 0
„ 27th „ „ -	32 8	27 10	20 1
February 1892 - - -	32 6	28 2	19 11
January 1892 - - -	*35 4*	*29 2*	*20 6*
December 1891 - - -	*37 6*	*29 11*	*21 5*
November „ - - -	*37 10*	*31 0*	*21 7*
October „ - -	*35 0*	*29 6*	*18 9*
September „ - - -	*38 5*	*28 6*	*20 2*
August „ - - -	*39 9*	*26 2*	*21 4*
July „ - - -	*38 6*	*26 1*	*21 3*
June „ - - -	*39 9*	*27 6*	*21 1*
May „ - - -	*40 4*	*27 8*	*21 10*
April „ - - -	*38 3*	*27 8*	*19 5*
March „ - - -	*33 10*	*27 8*	*18 5*
February 1891 - - -	*32 3*	*27 10*	*18 0*
„ *1890* - - -	*29 9*	*31 8*	*18 6*
„ *1889* - - -	*29 6*	*26 4*	*16 5*
„ *1888* - - -	*30 4*	*30 0*	*15 10*

III.—Emigration.—February 1892.

Return of the Numbers, Nationalities, and Destinations of the Passengers that left the United Kingdom for Places out of Europe during the Month ended 29th February 1892, and the Two Months ended 29th February 1892, compared with the corresponding Periods of the previous Year.

Nationalities.	United States.	British North America.	Australasia.	Cape of Good Hope and Natal.	All other Places.	Total.	*Total for corresponding Month, 1891.*
	Month ended 29th February.						
English	3,808	387	1,002	581	664	6,442	*6,929*
Scotch	558	39	176	21	118	912	*918*
Irish	964	14	158	6	30	1,172	*1,730*
Total of British origin	5,330	440	1,336	608	812	8,526	*9,577*
Foreigners	3,602	255	31	81	71	4,040	*4,101*
Nationalities not distinguished	—	—	—	—	272	272	*312*
Total	8,932	695	1,367	689	1,155	12,838	*13,990*
Total for corresponding Month, 1891	*9,614*	*831*	*1,361*	*703*	*1,481*	*13,990*	—
	Two Months ended 29th February.						
English	7,095	617	1,909	1,259	1,218	12,098	*12,780*
Scotch	975	53	415	65	228	1,736	*1,883*
Irish	1,594	33	319	21	70	2,037	*2,764*
Total of British origin	9,664	703	2,643	1,345	1,516	15,871	*17,397*
Foreigners	6,584	400	45	154	145	7,328	*6,991*
Nationalities not distinguished	—	—	—	—	612	612	*615*
Total	16,248	1,103	2,688	1,499	2,273	23,811	*24,993*
Total for corresponding Months, 1891	*16,419*	*1,224*	*2,973*	*1,426*	*2,951*	*24,993*	—

Note.—The above figures, being made up at the earliest possible date after the close of each month, are subject to correction in the Annual Returns.

IV.—Alien Immigration—January 1892.

Return of the Number of Aliens arrived from the Continent at Ports* in the United Kingdom during the Month ended 31st January 1892, compared with the corresponding Period of the previous Year.

(Compiled from the Alien Lists received by the Customs under Act 6 Will. 4. c. 11. sect. 2.)

	Gothenburg.		Hamburg.		Christiania, Arendal, and Christiansand.		Other Ports.		Total.	
	1892.	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.	1891.
	Month ended 31st January.									
Aliens not stated to be *en route* to America:† Arrived at London	66	70	426	360	4	40	193	155	689	625
„ Grimsby	—	—	107	8	—	—	41	2	148	10
„ Hull	21	22	44	14	48	4	159	54	272	94
„ Tyne Ports (Newcastle, North and South Shields)	18	7	5	1	176	194	177	236	376	438
„ Leith	—	—	82	9	—	—	11	78	93	87
„ Other ports	13	20	98	54	74	49	231	181	416	304
Total	118	119	762	446	302	287	812	706	1,994	1,558
Aliens *en route* to America: Arrived at Grimsby	—	—	742	506	—	—	65	20	807	526
„ Hull	283	314	325	174	72	100	302	159	982	747
„ Hartlepool, West	—	—	523	176	—	—	—	—	523	176
„ Leith	—	—	407	70	—	—	82	74	489	144
„ Other ports	—	—	—	2	—	—	—	493	—	495
Total	283	314	1,997	928	72	100	449	746	2,801	2,088
Total of aliens *en route* and of aliens not stated to be *en route* to America†	401	433	2,759	1,374	374	387	1,261	1,452	4,795	3,646

* The ports from which alien lists are received are Aberdeen, Belfast, Bristol, Dover, Dublin, Folkestone, Glasgow, Goole, Grangemouth, Granton, Greenock, Grimsby, Harwich, Hull, Kirkcaldy, Leith Liverpool, London, Middlesbrough, Newcastle, North Shields, South Shields, Sunderland, and West Hartlepool. The lists received from Dover, Folkestone, and Harwich, show only deck passengers and persons who, after landing, proceed by train as third-class passengers.

† The distinction made in this return between "Aliens not stated to be *en route* to America" and "Aliens *en route* to America" is due to the fact that the great majority of aliens who arrive from continental ports are reported to be on the way to America, and it is considered desirable to record this fact. But it is not thereby implied that the "Aliens not stated to be *en route* to America" come to this country for settlement, there being in fact a large emigration of foreigners from this country, while many of the aliens arriving from continental ports return to the Continent (*see* Annual Report on Emigration and Immigration, No. 147. sess. 1891, and Monthly Emigration Returns).

V.—Bankruptcy.—England and Wales.

Number of Receiving Orders Gazetted in the under-mentioned Periods and in the under-mentioned Principal Trades and Occupations.

	February		Two months ended February	
	1892.	*1891.*	1892.	*1891.*
	No.	*No.*	No.	*No.*
Total gazetted	404	*290*	741	*636*
Number gazetted in principal trades and occupations:—				
Publicans and hotel keepers, &c.	39	*27*	67	*47*
Grocers, &c.	28	*21*	58	*41*
Builders	20	*16*	36	*38*
Farmers	13	*16*	31	*28*
Boot and shoe manufacturers and dealers	11	*7*	25	*22*
Butchers	11	*6*	24	*17*
Bakers	10	*7*	21	*17*
Tailors, &c.	9	*7*	18	*11*
Drapers, haberdashers, &c.	11	*5*	16	*11*
Coal and coke merchants and dealers	12	*3*	14	*7*
Decorators, painters, plumbers, &c.	7	*5*	11	*16*
Corn, flour, seed, hay and straw merchants and dealers	3	*1*	10	*5*
Agents, commission and general	8	*5*	9	*15*
Clerks, commercial and general	3	*5*	9	*11*
Greengrocers, fruiterers, &c.	5	*6*	9	*9*
Solicitors	3	*2*	9	*3*
Wine and spirit merchants, &c.	6	*1*	9	*2*
Dairymen, cowkeepers, &c.	3	*5*	9	*8*
Carpenters and joiners	5	*6*	8	*13*
Auctioneers	4	*2*	8	*7*
Jewellers, watchmakers, importers, silversmiths, &c.	3	—	8	*2*
Provision merchants, &c.	3	*3*	7	*7*
Engineers and founders, &c.	4	*3*	7	*7*
Tobacconists, &c.	6	*2*	7	*3*
Saddlers and harness makers	4	*3*	7	*4*
Carriers, carmen, lightermen, and hauliers	5	*2*	7	*3*
Merchants	5	*3*	6	*9*
Travellers, commercial, &c.	3	*1*	6	*3*
Contractors	3	—	6	*2*
China, glass, and earthenware, &c. dealers	2	—	6	*1*
Ironmongers	3	—	5	*1*
Printers and publishers	4	*1*	5	*2*
Fishmongers, poulterers, &c.	2	*2*	4	*6*
Clothiers, outfitters, &c.	1	—	4	*2*
Confectioners	2	—	4	*3*
Gardeners, florists, &c.	1	—	4	*2*
Stationers	1	*3*	4	*3*
Blacksmiths, farriers, &c.	3	*5*	4	*6*
Carriage, &c. builders	2	*1*	4	*4*
Timber merchants and wood dealers	2	*7*	4	*7*
Restaurant, coffee, and eating-house keepers	2	*2*	4	*3*
Architects and surveyors	2	*2*	4	*3*
Bricklayers, plasterers, &c.	3	*1*	4	*2*

	February		Two months ended February	
	1892.	*1891.*	1892.	*1891.*
Number gazetted in principal trades and occupations—*cont.*	No.	*No.*	No.	*No.*
General dealers	1	*1*	3	*2*
Millers	2	*1*	3	*3*
Brewers and beer merchants	1	—	3	*3*
Cattle and pig dealers	2	—	3	*2*
Hairdressers	2	—	3	*1*
Officers in Army	1	*1*	3	*2*
Wheelwrights	—	*1*	3	*2*
Cabinet-makers and upholsterers	—	—	2	*7*
Furniture dealers and makers	2	*1*	2	*4*
Milliners, dressmakers, &c.	1	*2*	2	*4*
Lodging-house keepers	2	—	2	*2*
Brokers, stock and share	2	—	2	*2*
Schoolmasters and schoolmistresses	1	*1*	2	*3*
Curriers, tanners, and leather merchants	1	—	2	*3*
Colliers, miners, &c.	—	*1*	2	*3*
Fur merchants and furriers	1	*2*	1	*4*
Agents, financial	—	*2*	1	*2*
Hosiers, glovers, &c.	—	*2*	1	*3*
Woollen merchants, manufacturers, &c.	1	*1*	1	*1*
Officers in Civil Service	—	*2*	1	*3*
Aërated and Mineral Water Manufacturers	1	*1*	1	*2*
Tea merchants, &c.	1	*2*	1	*2*
Surgeons	1	*1*	1	*3*
Warehousemen	—	—	1	*1*

VI.—Export of Live Animals from Ireland to Great Britain.

Return of the Number of Animals exported from Ireland to Great Britain during the month ended 29th February 1892, and during the first Two Months of the Year 1892, compared with the corresponding periods of the Year 1891.

Animals.	February		Two months ended February	
	1892.	*1891.*	1892.	*1891.*
	No.	*No.*	No.	*No.*
Cattle	27,336	*34,202*	67,891	*71,009*
Sheep	17,282	*7,034*	47,522	*19,875*
Swine	44,151	*53,206*	123,911	*132,542*
Goats	141	*62*	157	*77*
Horses	1,607	*1,735*	2,763	*2,927*
Mules or Jennets	—	*2*	2	*2*
Asses	6	*25*	9	*27*
Total	90,523	*96,266*	242,555	*226,453*

VII.—Fishery Statistics.—England and Wales.

Statement of the Total Quantity and Value of the Fish returned as landed on the English and Welsh Coasts from the fishing grounds during the Month and Two Months ended 29th February 1892, compared with the corresponding Periods of the Year 1891.

—	February		Two Months ended February	
	1892.	1891.	1892.	1891.
	Quantity.			
	Cwts.	Cwts.	Cwts.	Cwts.
Brill	1,520	1,927	2,798	3,771
Soles	5,649	7,792	8,864	17,893
Turbot	3,997	4,941	7,745	9,932
Prime fish, not separately distinguished	3,213	2,881	6,614	6,578
Total prime fish	14,379	17,541	26,021	38,174
Cod	32,644	39,749	57,300	69,880
Haddock	151,695	130,191	306,104	292,913
Hake	2,485	1,597	5,638	7,245
Halibut	3,274	2,369	4,405	3,963
Herrings	2,180	8,551	22,098	37,052
Ling	9,133	10,055	15,279	18,140
Mackerel	322	338	1,804	1,711
Pilchards	68	282	3,600	4,694
Plaice	37,554	37,168	66,745	82,204
Sprats	2,889	31,127	6,215	26,633
All other, except shell fish	59,356	84,041	132,062	166,303
Total	315,979	362,929	647,271	798,878
Shell fish:—	No.	No.	No.	No.
Crabs	175,320	125,032	238,505	165,171
Lobsters	39,616	37,840	57,983	46,566
Oysters	2,858,000	2,918,000	5,942,000	6,833,000
Other shell fish	Cwts. 38,811	Cwts. 60,189	Cwts. 76,424	Cwts. 111,730
	Value.			
	£	£	£	£
Brill	4,313	3,389	8,378	7,793
Soles	40,142	43,670	64,092	94,212
Turbot	17,448	17,837	35,410	39,056
Prime fish, not separately distinguished	10,263	8,646	21,718	20,078
Total prime fish	72,166	73,542	129,598	161,139
Cod	25,129	25,891	47,528	48,240
Haddock	99,348	76,182	186,690	184,009
Hake	2,755	1,637	5,912	6,683
Halibut	10,740	6,737	15,374	11,243
Herrings	639	1,110	6,752	14,609
Ling	7,795	6,754	13,808	13,004
Mackerel	581	805	2,331	2,520
Pilchards	17	91	694	1,215
Plaice	46,192	42,059	88,801	93,824
Sprats	371	2,704	1,267	8,275
All other, except shell fish	42,737	56,956	96,699	102,469
Total	308,470	294,528	595,454	644,217
Shell fish:—				
Crabs	1,682	1,402	2,391	1,789
Lobsters	2,046	1,897	2,944	2,244
Oysters	11,014	10,502	21,773	24,805
Other shell fish	9,476	12,531	17,305	21,645
Total	24,218	26,332	44,413	50,483
Total value of fish landed	332,688	320,860	639,867	694,700

Note.—The above figures are subject to correction in the Annual Returns. The values given are the actual values returned by the local officers at each place.

VIII.—Fishery Statistics.—Scotland.

Statement of the Total Quantity and Value of the Fish returned as landed on the Scotch Coasts during the Month and Two Months ended 29th February 1892, compared with the corresponding Periods of the Year 1891.

	February		Two Months ended February	
	1892.	*1891.*	1892.	*1891.*
	Quantity.			
	Cwts.	*Cwts.*	Cwts.	*Cwts.*
Soles (Lemon Soles)	924	*1,018*	1,504	*1,820*
Turbot	299	*460*	573	*845*
Cod	48,662	*80,043*	76,513	*123,441*
Eel	1,222	*1,674*	1,976	*2,649*
Flounder, Plaice, Brill	8,745	*12,218*	13,216	*19,240*
Haddock	95,473	*133,382*	161,602	*244,359*
Halibut	805	*793*	995	*1,048*
Herrings	55,969	*111,044*	103,929	*169,939*
Ling	14,723	*15,781*	18,732	*22,393*
Mackerel	—	—	12	—
Saith (Coal Fish)	6,395	*7,910*	9,489	*11,700*
Skate	4,011	*6,915*	5,725	*11,112*
Sparling	13	*29*	45	*90*
Sprats	560	*59*	735	*360*
Torsk (Tusk)	179	*76*	222	*90*
Whiting	4,742	*7,589*	8,884	*14,962*
All other, except shell fish	7,856	*13,742*	15,810	*29,043*
Total	250,578	*392,798*	419,962	*653,061*
Shell fish:—	No.	*No.*	No.	*No.*
Crabs	97,450	*47,770*	198,200	*108,985*
Lobsters	34,748	*35,155*	58,024	*61,505*
Oysters	46,300	*32,800*	116,100	*80,100*
	Cwts.	*Cwts.*	Cwts.	*Cwts.*
Clams	2,716	*4,794*	5,060	*10,374*
Mussels	23,210	*23,072*	44,458	*48,114*
Other shell fish	5,550	*4,627*	10,007	*8,850*
	Value.			
	£	£	£	£
Soles (Lemon Soles)	2,300	*1,945*	3,807	*3,592*
Turbot	987	*1,383*	1,982	*2,870*
Cod	21,728	*28,455*	36,540	*49,966*
Eel	578	*853*	908	*1,343*
Flounder, Plaice, Brill	7,716	*9,231*	12,224	*15,525*
Haddock	48,981	*46,556*	87,447	*98,612*
Halibut	1,156	*1,479*	1,396	*1,542*
Herrings	13,235	*20,289*	24,976	*39,232*
Ling	5,783	*5,857*	7,727	*8,794*
Mackerel	—	—	5	—
Saith (Coal Fish)	979	*876*	1,581	*1,469*
Skate	1,016	*1,533*	1,497	*2,686*
Sparling	95	*168*	272	*507*
Sprats	94	*4*	114	*42*
Torsk (Tusk)	37	*15*	46	*19*
Whiting	2,438	*3,146*	4,671	*6,237*
All other, except shell fish	1,820	*2,495*	4,511	*4,837*
Total	108,943	*123,979*	189,704	*237,293*
Shell fish:—				
Crabs	572	*290*	1,124	*652*
Lobsters	1,735	*1,758*	2,986	*3,407*
Oysters	206	*142*	555	*366*
Clams	389	*623*	733	*1,096*
Mussels	1,304	*1,283*	2,444	*2,376*
Other shell fish	1,055	*941*	1,750	*1,567*
Total	5,261	*5,007*	9,592	*9,164*
Total value of fish landed	114,204	*128,986*	199,296	*246,457*

Note.—The above figures are subject to correction in the Annual Returns.

IX.—Fishery Statistics.—Ireland.

Statement of the Total Quantity and Value of the Fish returned as landed on the Irish Coasts during the Month and Two Months ended 29th February 1892, compared with the corresponding Periods of the Year 1891.

	February		Two months ended February	
	1892.	*1891.*	1892.	*1891.*
	Quantity.			
	Cwts.	*Cwts.*	Cwts.	*Cwts.*
Soles	181	*179*	357	*376*
Turbot	101	*56*	192	*152*
Total prime fish	282	*235*	549	*528*
Cod	5,658	*7,990*	9,510	*13,919*
Haddock	2,848	*2,773*	5,537	*5,083*
Hake	260	*96*	704	*374*
Herrings	358	*120*	977	*765*
Ling	3,278	*3,034*	4,500	*4,169*
Mackerel	90	—	372	*188*
Sprats	—	—	—	*2,100*
Whiting	1,320	*1,718*	3,032	*3,518*
All other, except shell fish	2,870	*5,940*	5,568	*10,191*
Total	16,964	*21,926*	30,769	*41,435*
Shell fish:—	No.	*No.*	No.	*No.*
Crabs	3,100	*2,100*	5,170	*3,700*
Lobsters	4,620	*3,720*	7,200	*7,010*
Oysters	70,200	*162,480*	185,840	*338,480*
	Cwts.	*Cwts.*	Cwts.	*Cwts.*
Other shell fish	1,933	*1,047*	3,076	*1,551*
	Value.			
	£	£	£	£
Soles	971	*742*	1,684	*1,495*
Turbot	269	*191*	549	*493*
Total prime fish	1,240	*933*	2,233	*1,988*
Cod	2,547	*3,436*	4,650	*5,931*
Haddock	1,413	*1,768*	3,008	*3,474*
Hake	233	*113*	631	*398*
Herrings	152	*47*	375	*250*
Ling	1,160	*1,229*	1,676	*1,704*
Mackerel	108	—	164	*94*
Sprats	—	—	—	*139*
Whiting	671	*770*	1,526	*1,624*
All other, except shell fish	1,551	*1,908*	3,255	*3,909*
Total	9,075	*10,204*	17,518	*19,511*
Shell fish:—				
Crabs	19	*13*	33	*23*
Lobsters	172	*147*	274	*272*
Oysters	153	*235*	306	*464*
Other shell fish	224	*142*	374	*256*
Total	568	*537*	987	*1,015*
Total value of fish landed	9,643	*10,761*	18,505	*20,526*

Note.—The above figures are subject to correction in the Annual Returns. The values given are the actual values returned by the local officers at each place.

X.—Cotton Returns.—February 1892.

Return of the Number of Bales of Cotton Imported and Exported, Forwarded from Ports to Inland Towns, and Returned to Ports during the Month and Two Months ended February 1892, compared with the corresponding Months of the Year 1891.

—	Month of February		Two Months ended February	
	1892.	*1891.*	1892.	*1891.*
	Imports.			
	No.	*No.*	No.	*No.*
American	341,148	*419,581*	833,712	*823,624*
Brazilian	14,198	*11,652*	17,533	*40,089*
East Indian	5,399	*17,654*	12,635	*25,602*
Egyptian	28,969	*44,515*	89,311	*92,040*
Miscellaneous	4,477	*11,711*	13,294	*21,960*
Total	394,191	*505,113*	966,485	*1,003,315*
	Exports.			
American	18,870	*14,039*	35,069	*32,306*
Brazilian	670	*105*	670	*105*
East Indian	7,728	*17,923*	14,253	*32,958*
Egyptian	3,098	*1,639*	7,191	*3,643*
Miscellaneous	340	*2,605*	619	*4,921*
Total	30,706	*36,311*	57,802	*73,033*
	Forwarded from Ports to Inland Towns.			
American	266,313	*244,559*	540,208	*559,419*
Brazilian	4,198	*9,497*	8,337	*31,830*
East Indian	4,514	*11,269*	8,576	*23,231*
Egyptian	26,130	*22,527*	62,105	*54,981*
Miscellaneous	8,020	*13,340*	16,379	*27,974*
Total	309,175	*301,192*	635,605	*697,435*
	Forwarded from Inland Towns to Ports.			
American	101	*340*	231	*735*
Brazilian	4	*26*	5	*29*
East Indian	5	*8*	16	*14*
Egyptian	—	*156*	1	*156*
Miscellaneous	3	*132*	43	*264*
Total	113	*662*	296	*1,198*

XI.—Periodical Returns of Imports and Exports for Foreign Countries.

Statement of the Imports and Exports into and from the under-mentioned Countries in the latest Month for which Returns have been received, with Aggregates for the Period of the Year, including such latest Month.

Note.—Rouble = 2*s.*; Franc = $9\frac{6}{10}$*d.*; Milreis = 4*s.* 6*d.*; Lire = $9\frac{6}{10}$*d.*; Drachme = $9\frac{6}{10}$*d.*; Lei = $9\frac{6}{10}$*d.*; Dollar = 4*s.* 2*d.*

I.—Imports.

Name of Country.	Latest Month.	Value for the Month.		Aggregate for Period of the Year, including latest Month.	
		1891.	*1890.*	1891.	*1890.*
Russia in Europe	Nov.	Roubles 26,577,000	*37,306,000*	321,013,000	*351,366,000*
France	Jan.	(1892) Frs. 489,937,000	(*1891*) *308,643,000*	(1892) —	(*1891*) —
Portugal	Oct.	(1891) Milreis 2,738,000	(*1890*) *3,466,000*	(1891) 33,821,000	(*1890*) *37,635,000*
Italy	Dec.	Lire 102,390,000	*121,544,000*	1,122,299,000	*1,319,688,000*
	Jan.	„ (1892) 70,326,000	(*1891*) *82,118,000*	(1892) —	(*1891*) —
Greece	Aug.	(1891) Drchms. 13,512,000	(*1890*) *12,201,000*	(1891) 76,917,000	(*1890*) *66,744,000*
Roumania	Sept.	Lei 26,075,000	—	354,567,000	—
United States	Jan	(1892) Dollars 62,720,000	(*1891*) *62,304,000*	(1892) —	(*1891*) —
British India*	Dec.	(1891) Rupees 5,85,37,755	(*1890*) *5,07,47,078*	(1891) 49,60,30,312	(*1890*) *51,39,07,845*

II.—Exports.

Name of Country.	Latest Month.	Value for the Month.		Aggregate for Period of the Year, including latest Month.	
		1891.	*1890.*	1891.	*1890.*
Russia in Europe	Nov.	Roubles 56,901,000	*64,195,000*	669,146,000	*642,335,000*
France	Jan.	(1892) Frs. 239,867,000	(*1891*) *201,543,000*	(1892) —	(*1891*) —
Portugal	Oct.	(1891) Milreis 2,062,000	(*1890*) *2,147,000*	(1891) 17,369,000	(*1890*) *18,115,000*
Italy	Dec.	Lire 105,542,000	*96,101,000*	877,536,000	*893,945,000*
	Jan.	„ (1892) 66,687,000	(*1891*) *56,941,000*	(1892) —	(*1891*) —
Greece	Aug.	(1891) Drchms. 15,749,000	(*1890*) *14,764,000*	(1891) 57,029,000	(*1890*) *55,306,000*
Roumania	Sept.	Lei 30,486,000	—	204,488,000	—
United States	Jan.	(1892) Dollars 100,138,000	(*1891*) *82,630,000*	(1892) —	(*1891*) —
British India*	Dec.	(1891) Rupees 8,27,79,198	(*1890*) *8,37,79,398*	(1891) 77,47,98,676	(*1890*) *74,29,64,856*

The above figures are subject to revision in the Annual Returns.

Note.—The figures are those of the "special" imports and exports, except in the case of Roumania, the United States, and British India, where the figures are "general." "Special" means, in the case of imports, imports for home consumption, in the case of exports, exports of domestic produce and manufacture only.

* The aggregate figures are for the financial year commencing 1st April.

XII.—Foreign Trade of India.

Imports and Exports into and from British India.

	Imports from Foreign Countries.		Exports to Foreign Countries.*	
	Nine Months ended 31st December		Nine Months ended 31st December	
	1891.	1890.	1891.	1890.
	R.	R.	R.	R.
I.—Animals—living	27,38,353	23,35,269	6,02,945	8,25,919
II.—Articles of food and drink	5,93,61,469	6,16,55,064	26,46,23,227	19,53,98,246
III.—Metals and manufactures of—				
A.—Hardware and cutlery (including plated-ware)	91,91,550	83,98,649	86,514	66,240
B.—Metals	3,98,56,243	4,09,66,311	4,70,700	3,45,241
C.—Machinery and mill-work	1,58,49,065	1,53,38,008	1,246	6,052
D.—Railway plant and rolling-stock (other than Government stores)	1,14,98,838	1,26,28,928	—	—
IV.—Chemicals, drugs, medicines and narcotics, and dyeing and tanning materials	1,11,52,859	1,08,09,556	9,51,02,196	9,61,19,145
V.—Oils	1,93,05,283	1,80,72,470	44,38,908	41,34,544
VI.—Raw materials and unmanufactured articles	2,86,06,779	3,02,34,158	27,23,50,688	27,81,68,363
VII.—Articles manufactured and partly manufactured—				
A.—Yarns and textile fabrics	24,41,51,545	26,01,53,768	7,45,37,235	7,89,03,449
B.—Apparel	1,08,19,551	1,01,88,366	8,38,906	7,09,656
C.—Other articles manufactured	4,34,98,777	3,99,57,278	3,05,42,533	2,83,13,547
Total	49,60,30,312	51,39,07,845	74,35,95,098	68,89,50,402

* Exports of Indian Produce and Manufacture only.

LIST OF DIPLOMATIC AND CONSULAR REPORTS

Annual Series.

Reports of the Annual Series, 1892, have been issued from Her Majesty's Diplomatic and Consular Officers at the following places, and may be obtained from Messrs. Eyre and Spottiswoode, East Harding Street, Fleet Street, E.C., &c.

No.	——	Price.
974	Guatemala	1*d.*
975	Munich	2*d.*
976	Meshed	1½*d.*
977	Para	½*d.*
978	Florence	1*d.*
979	The Hague	1½*d.*
980	Patras	1*d.*
981	Paris	1½*d.*
982	Zanzibar	2½*d.*
983	Buenos Ayres	½*d.*
984	Copenhagen	1*d.*
985	Stuttgart	1*d.*
986	New Orleans	1½*d.*

The following Reports from Her Majesty's Representatives abroad on subjects of general and commercial interest have also been issued, and may be obtained from the above-mentioned sources:—

No.	——	Price.
216	*Argentine Republic.*—Report on Emigration to Argentine Republic and Demand for Labour, 1891	3*d.*
217	*Russia.*—Report on the Condition of Labour in Russia	1½*d.*
218	*Argentine Republic.*—Report on the Salt Industries of the Argentine Republic	½*d.*
219	*Austria-Hungary.*—Report on the Timber Trade of Bosnia and the Herzegovina	1½*d.*
220	*Netherlands.*—Report on the Evidence taken at Rotterdam and Amsterdam by the Dutch Labour Commission	1½*d.*
221	*Netherlands.*—Report on Legislation for Protection of Women and Young Children employed in Factories, &c.	1*d.*
222	*Tunis.*—Report on Projected Extension of the Tunisian Railway System	½*d.*
223	*Bulgaria.*—Translation of New Law on Mines	1*d.*

LIST OF COLONIAL OFFICE REPORTS.

The following Reports relating to Her Majesty's Colonial Possessions have been issued by the Colonial Office, and may be purchased from Messrs. Eyre and Spottiswoode, East Harding Street, Fleet Street, E.C. :—

Miscellaneous Series.

No.	Colony.	Year.
102	Basutoland (Governor's Visit)	1890
103	British New Guinea	1888–89
104	Natal	1889
105	Malta	,,
106	British Guiana	,,
107	Barbados	,,
108	Trinidad and Tobago	,,
109	Western Australia	,,
110	Gold Coast (Agricultural)	1890
111	Labuan	1889
112	Jamaica	,,
113	Falkland Islands	,,
114	Basutoland	1889–90
115	Sierra Leone	1889
116	Fiji	,,
117	Hong Kong	,,
118	St. Helena	,,

New Series of Colonial Reports.—Annual.

1	British Honduras	1889
2	Mauritius	,,
3	British Bechuanaland	1889–90
4	Victoria	1889
5	Newfoundland	,,
6	British New Guinea	1889–90
7	St. Vincent	1890
8	Bermuda	,,
9	Leeward Islands	1889
10	St. Lucia	1890
11	Bahamas	,,
12	Turks and Caicos Island	,,
13	Gibraltar	,,
14	Zululand	,,
15	Sierra Leone	,,
16	Barbados	,,
17	Falkland Islands	,,
18	Labuan	,,
19	British Honduras	,,
20	Basutoland	1890–91
21	Trinidad and Tobago	1890
22	Leeward Islands	,,
23	Grenada	,,
24	Straits Settlements	,,
25	British Guiana	,,
26	St. Helena	,,
27	Mauritius	,,
28	Gambia	,,